Croonian Lectures

ON THE

INFLUENCE OF THE CIRCULATION ON THE NERVOUS SYSTEM.

Delivered before the Royal College of Physicians of London,

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LECTURE III.—PART I.

MR. PRESIDENT AND GENTLEMEN,—In my last lecture I endeavoured to show that certain special diseases described in our text-books as congestion of the brain must be referred to other causes, and, indeed, chiefly to conditions the very reverse of a state of congestion. And I gave my reasons for believing that there is not any such disease as congestion of the brain in the sense of determination of blood to the head; or, in other words, congestion, as a cause of onset of attacks of diseases such as are described in some of our leading works under several distinct forms, does not exist. Neither pathological examination of persons dying under such conditions, nor the clinical symptoms described, afford any proof that a congested state of the brain even attends such illness, let alone gives rise to it; and the supposition that the blood causes such symptoms arose from views regarding the cerebral circulation which are obsolete.

Meantime, whilst such obsolete views of the cerebral circulation have entailed upon us the confusing doctrine of congestion of the brain, modern views of the vascular mechanism have in their turn given rise to speculative explanations of nervous disorders, which greatly and increasingly influence present teaching upon diseases of the nervous system. I refer in particular to the widely-spread assumption that epilepsy and other convulsive disorders are caused or initiated by spasm of the arteries of the brain. I will, with your permission, now examine the grounds of such an opinion, and afterwards consider the relation of angina pectoris to high tension in the arteries.

Any explanation is so much better than none that the explaining power of a new view is apt to purchase condonement of its unreality. Only let us with Kussmaul assume that he produced epilepsy in animals by ligaturing all the cervical vessels; and then if, indeed, we can further justly persuade ourselves with him that the arteries of the brain are able to contract universally, through an impulse sent to them along the vaso-motor nerves, so that the brain is rendered entirely anæmic as if the cervical arteries were all ligatured, this would undoubtedly make epilepsy a very comprehensible thing, reducing the whole highly complex set of actions to dependence upon a single impulse from the vaso-motor centres. Even if we don't accept the theory of entire anæmia, but take the same idea as modified by Schrœder, and now taught as the fashionable theory of epilepsy—namely, that the vaso-motor nerve carries forth a contractile influence to the arteries of the brain, which blanches it enough to produce unconsciousness,—we make a step which invades the mystery of epileptic convulsions, and which would put at least a part of it into continuity with the paleness of emotion, and other familiar things of the kind.

If we go further, and suppose with some writers who have devoted special attention to nervous diseases that in an epileptic convulsion the tonic stage is caused by tonic spasm of the arteries, and that each jerk of clonic spasm in the subsequent convulsion is due to a corresponding short spasm of the arteries of the brain, we can read off the epileptic paroxysm in hydraulic changes, and this appears to afford a certain satisfaction which may be taken for an explanation of the subject. Indeed, in the supposed power of rapid and entire closure of all the cerebral arteries, or the supposed power of rapid closure of any of them under the influence of the sympathetic, we have a handy method of unlocking almost any difficulties as to nerve-action, and if you will only imagine that the arteries close or open to the play of sympathetic influence, like mysterious doors in enchanted forests to the utterance of "Open, sesame," many otherwise impenetrable obscurities seem made free to the entry of light.

Now there is no doubt that the arteries, and especially the smaller arteries, are provided with muscular fibres in their walls, and that these muscular fibres contract, and cause the arteries to narrow their channels. But what we have to do with is the degree in which this power of contraction is under the influence of the vaso-motor nerves. If it were really the case that the muscular activity of the arteries is entirely dependent upon the action of the vaso-motor nerves, the powers of these nerves would stand in a much clearer light. But the contractions of the arteries serve purposes with which the nerves have nothing to do, and over which the nerves have no power. For it has been shown that the contractions of the arteries will proceed just the same when the vaso-motor nerves are destroyed. Thus the remarkable rhythmical contractions and dilatations of the arteries in the rabbit's ear are independent of the vaso-motor nerves, for they continue when the cervical sympathetic is divided, and even, according to Professor Michael Foster, when the cervical ganglion is extirpated. Again, Kussmaul relates that after section of the cervical sympathetic nerve he has seen the arteries of the rabbit's ear contract and drive their contents into the veins. Yet no ganglionic mechanism has been found in the rabbit's ear to account for these effects by nervous action. From such facts it follows that the muscles of the arteries possess and exercise their powers in a way independent of the vaso-motor centres, and that their contractions are not organised only to answer to those centres, but that the muscularity of the arteries fulfils functions independently of the play of the vaso-motor nerves upon them. This would lead us to anticipate limits to the power of the vaso-motor nerves over the arteries. And, indeed, if we study the results of the various experiments which have revealed the intricacy of the vascular mechanism, we find some points appearing which are important for our question. The first point is that when arteries are subjected to irritation so as to cause them to contract, the contraction is not instantaneously rapid, but measurably slow; on this point there is a very general agreement among observers. Reid in his "Physiological and Anatomical Researches," p. 46, says, "The contractility of the arteries manifests itself by slow contraction followed by equally slow dilatation." Carpenter (p. 330, ed. 1876) quoting Weber, says, "The electric stimulus is most effectual when applied by the magneto-galvanic apparatus; when the minute arteries of the mesentery of frogs between $\frac{1}{2}$ and $\frac{1}{17}$ of a Paris line in diameter are thus stimulated, they do not immediately respond to the irritation, but begin to contract after a few seconds, so that their diameter in from five to ten seconds is diminished by a third and their sectional area consequently reduced to about half; by a continued application of the stimulus the calibre is so much reduced that only a single row of corpuscles can pass, and at last the vessels become completely closed and the current of blood arrested, the original conditions being restored on the cessation of the electric current." Paget ("Surgical Pathology," p. 225), says, "If as one is watching the movements of blood in a companion artery and vein the point of a fine needle be drawn across them three or four times without apparently injuring them or the membrane over them, they will both presently gradually contract and close . . . . . follows at some interval after the application of the stimulus and is slowly accomplished, it shows that their power of contraction is like that of parts with smooth or organic muscular fibres." Michael Foster says, "By galvanic and still better by mechanical stimulation this muscular coat may in the living artery be made to contract. During this contraction, which has the slow character belonging to the contraction of all plain muscle, the calibre of the vessel is diminished." I have made many observations upon the contraction of arteries as caused by direct stimulation in watching the development of the inflammatory process, and have observed them to contract slowly. I never saw complete contraction in less than six seconds. But I have never witnessed the effects of stimulation of the vaso-motor nerves. It is antecedently improbable that if the contractions of arteries are slow when caused by direct stimuli, they would be rapid under indirect. Dr. Burdon-Sanderson in the "Handbook for the Physiological Laboratory," page 237, when speaking of the direct excitation of the spinal cord by galvanism in the frog, says, "On opening the key for a moment so as to allow the induced current to pass through the needles, it is seen that all the arteries of the web at once contract, the contraction increasing for four or five seconds,

and then gradually subsiding; if the excitation is continued for several seconds the circulation stops." I have here a copy of a diagram from Professor Michael Foster's work which is perhaps more to our purpose, as it shows an instance of the rate of arterial contraction in a mammal. It is a manometer trace of the fall of blood pressure caused by galvanising the depressor nerve in the rabbit, but it is said in the text that galvanising the excitor nerve will produce sometimes the exact reverse of this trace. The slow progress of the contraction is evident when we see that it takes thirteen seconds to complete the action, and that this action is nowhere sudden, but is gradual throughout. This corresponds with the usual characters of contractions of plain muscular fibre. My first proposition, then, is that the contraction of arteries is slow, requiring from four or five to thirteen seconds for its completion.

I will next inquire what is the degree of completeness of the contraction of arteries as caused through the vaso-motor nerves. We have seen that the entire closure of the arteries may be caused in the web of the frog's foot by the stimulation of the spinal cord. But it must be observed that in cold-blooded vertebrates the several parts of the vascular system stand in somewhat different relations to those they bear in warm-blooded animals. In fish the veins have pulsatile sacs upon them. The veins as well as the arteries of the frog's foot will close on application of a direct stimulus. Frogs have lymphatic hearts. In short, there is less differentiation of the vascular mechanism in such animals; the heart does less and the vessels more in the work of circulation. If, instead of such remote creatures, we take examples from amongst warm-blooded vertebrates, the development of whose vascular mechanism is more like that which belongs to the human organism, we find that the powers of the vaso-motor nerves are moderate. There appears evidently in the descriptions of the results of the stimulation of the vaso-motor nerves a much less extent of contraction produced than there is of certain and large dilatation of the vessel on section of the nerve. Section of the vaso-motor nerves dilates the arterioles very decidedly, and when the vessels are thus dilated if an interrupted current is sent through the distal segment of nerve, such a current as would tetanise a muscular nerve, the result, according to Professor Michael Foster, is to cause the arteries to contract "to or beyond" their normal calibre. This would lead to the inference that stimulation of the vaso-motor nerves in the most violent way will do little more than counterpoise the effect of total paralysis of the nerve. In one of Ludwig and Cyon's experiments cited by Dr. Burdon-Sanderson, the normal arterial pressure was ninety milimetres; after division of the splanchnic the fall was to forty-one millimetres; during excitation of the peripheral end of the nerve 115 millimetres. Thus the rise on stimulation did not exceed the normal by half the extent of the fall on division of the nerve. In the case of the rabbit's ear, after the vessels have been made very visible by the dilatation of them consequent upon division of the cervical sympathetic, the same authority says, if now the peripheral end of the divided nerve is placed between the copper points and the key opened, the artery contracts and the congestion of the ear disappears. Dr. Michael Foster says a galvanisation of the peripheral end of the nerve will cause the rabbit's ear to become pale, much paler than normal; if the current be strong, the vessels diminish in size, so that the smaller ones disappear and the temperature falls. But, then, it must be remembered that the visibility of the smaller vessels and the rise of temperature were due to total paralysis of the vessels by section of the nerve. And that the galvanism has to close up the vessels dilated by paralysis, and to cause a fall of abnormal temperature. Also the vessels have to be seen through the skin of the ear, and none of them are large, so that the continued visibility of these small vessels covered by skin and hair when under tetanising stimulation of the nerve shows how limited is the power of the vaso-motor nerves over the arteries. Now, these are but moderate results as compared with ligature of the cervical arteries; and if stimulating the arteries by tetanising the vaso-motor nerves only causes them to contract "to or beyond" their normal calibre, and if the muscular powers of the arteries are shown to act independently of the vaso-motor nerves, it is fair to ask, what justification there is in this for supposing that any action of vaso-motor centres will equal Kussmaul and Tenner's proceedings, so that the arteries of the brain may be virtually ligatured by the cervical sympathetic. When the physiologist proceeds from his point of view to apply any conclusions from his experiments to practical medicine, he is very moderate; he has seen the extent of contraction and dilatation obtainable by cutting and galvanising the sympathetic, and he does not suppose that the sympathetic can ligature the cervical arteries. What he says is as follows: "The numerous pathological phenomena classed under sympathetic action, such as the affection of one eye by disease of the other, are probably at the bottom the results of reflex motor-action"; and again: "The afferent impulses may arise anywhere, as, for instance, in the brain. Thus an emotion originating in the cerebrum may either inhibit or exalt that portion of the vaso-motor centre which governs the vascular area of the head and neck, and thus call forth"—what?—"either blushing or pallor." This is very moderate; it corresponds with the degree of change in the calibre of the arteries observed in experiment. But it gives no adequate grounds for any supposition of an action of the vaso-motor centres that would equal Kussmaul and Tenner's ligatures in depriving the brain of blood so as to cause fits of epilepsy, or even fits of unconsciousness. Attempts to produce such fits by galvanising the cervical sympathetic ended in failure. The physiologist only claims for the action of the vaso-motor nerves such effects as blushing and pallor, and these would rather go with fits of laughter or crying. Even in the matter of blushing and pallor we are not entitled to suppose that the change of blood-stream is altogether due to the vaso-motor nerves. It is true, of course, that bad news will make the face pale, but we must not forget that such causes influence the heart's beat, and thus a person suffering a mental shock has his circulation altered at its centre and feels this effect universally; so that, perhaps, his stomach seems to turn, and he may have to go and eat his supper with what appetite he has. In fact, the only changes in the vessels of the face that can be certainly referred to the vaso-motor nerves are such changes as are more properly called flushing, as in the hectic of phthisis, or in the redness of the eye in neuralgia.

There is, of course, not the slightest doubt about the arteries possessing and using the power of contraction. But in estimating the effects of their contractile actions we have to note carefully the rapidity and the degree of their contraction, and the extent to which it is under control of the vaso-motor centres and nerves. It must, I think, be admitted that so far as we have any evidence of sudden and entire closure, the arteries, if they possess such a power, are curiously sparing in the use of it. Indeed, I do not know a single instance in which the arteries put forth a power of sudden and total closure in parts exposed to view. The arteries appear to reserve all these quick and strong acts for exhibition, if I may so speak, in dark séance in such deep parts as are hidden within the cranium. But if the arteries are capable of inducing sudden blanching by total contraction why should the brain be the only part subject to such play? Why should not the arm, or leg, or ear, or nose, now and then, show sudden paleness and redness from central vaso-motor play?

The kinds of instance which show the effect of contraction of the arteries are well-known: thus the waxlike paleness of one or more fingers which some people are subject to, the drying of the mouth through depressing emotion, and its moistening through appetite; the flow of tears; the reddening of one ear "when people are talking of you at a distance." In all these cases we have effects which are, doubtless, due to the power of the nerves over the arteries, and some of which come on tolerably speedily. But in all these and such instances there is moderation in rate of accession, and also moderation in degree of the arterial change.

Let us now proceed to consider the onset of the epileptic convulsion which it is customary to attribute to spasm of the cerebral arteries. I have already traced this theory through Schroeder van der Kolk to the experiments of Kussmaul and Tenner, who produced epileptiform convulsions by ligature of the cervical vessels in rabbits, and who thereupon started a theory that spasms of the cerebral vessels would have the same effect. Schroeder adopted a part only of this theory, supposing that spasms of the cerebral arteries produce the unconsciousness but not the convulsions of epilepsy, and this theory is adopted by our own authorities upon the subject. But if we now refer to the published accounts of Kussmaul's experiments, we shall, I think, see reason in these to conclude that spasm of the arteries will not explain the onset of epilepsy. If we turn to Kussmaul's work we find as follows:—"General convulsions usually followed in from eight to eighteen seconds, after complete withdrawal of

arterial blood. . . . We found in every instance that the closing of all the four arteries was necessary to produce rapid convulsions. If but one carotid or one subclavian has remained pervious, we have never seen convulsions take place, even when the ligature has remained on the other three for several hours; the animals, however, have generally appeared enfeebled and more or less paralysed."

It appears, then, that when the arteries were closed absolutely as to three-quarters of their supply, no phenomena of epilepsy occurred, but only enfeebleness. We do not know what proportion of the remaining one-quarter of the arterial supply would have been sufficient to keep off the epileptic attack, since it was necessary to take this one-quarter away at one stroke by ligaturing the one remaining artery. But there were instances in which the fits did not occur even when all the cervical arteries were ligatured, instances which Kussmaul explained by supposing some small artery to have reached the brain from an unusual source. Hence a very small remainder of arterial blood-supply prevents the onset of epileptic phenomena. But I think I have shown from our best accredited works on physiology that the most forcible stimulation of the vaso-motor nerves in mammals is far from causing complete closure of the corresponding vessels, and, although there are no numerical proportions given, yet I submit that the descriptions which I have quoted justify me in saying that it is at least very doubtful whether the arteries can be made to contract down to one-quarter of their natural calibre by any known mode of action of the vaso-motor nerves, whereas it requires a contraction beyond this degree to produce any part of an epilepic attack.

Again, it is not only on account of its insufficient degree that arterial spasm will not explain any epileptiform phenomena, but there is the further lack of quickness in the act of arterial contraction. Let us take into consideration the slow rate of action of the arteries. When we realise the fact that even the partial closure which a vaso-motor nerve can cause in an artery requires from five to thirteen seconds for its production, we shall perceive that arterial contraction is too slow an affair to be credited with the production of the epileptic onset. For consider the frightful suddenness of the epileptic fit and compare it with thirteen or even with five seconds. Let anyone count five seconds on his watch, and he will find it a considerable time. If a person when taken with an epileptic attack had thirteen seconds warning, by changes in his brain through gradual loss of blood-supply, he would have time to do a great deal to protect himself. He could almost come in from the garden into the house, or at any rate cross his room to lie on a couch. Even if he had only five seconds he could get safely down upon the floor. But instead of this they fall downstairs or into the water, or into the fire; a stroke of lightning is not more absolutely sudden. Surely it is not to be supposed that no feeling at all would arise in the brain during a gradual blanching of it up to the degree Kussmaul and Tenner showed to be required before the epileptic onset will appear.

Meantime, however, it remains true that when a person is seized with epilepsy the face becomes very pale, and so some interference with blood-supply evidently does occur. And although I think it is our duty, in forming opinions on these grave subjects, to test the foundations and the reasonableness of our conclusions, yet I should not have spent so much time in showing the groundlessness of the theory of spasm of the cerebral vessels if I could not offer facts of a kind to explain the paleness of the face, and perhaps the unconsciousness of the epileptic seizure.

But I will now relate some observations which have convinced me that the cause of paleness of the face in the epileptic attack is stoppage of the heart's action. The first of these observations was as follows:—Seven years ago I was standing by a patient, who was in bed with cardiac dropsy, in Philip ward, at Guy's Hospital, and I was feeling his pulse carefully; the beats were regular and of moderate strength. I was looking towards the middle of the bed, and my attention was given to the pulse. I missed one, then another beat, and then found the pulse to have stopped so entirely that it made me look up suddenly at the man to see what was the matter. His face had become very pale; his head was turned towards his left shoulder, and the lip and cheek were twitching; the spasms then affected his arms, and he passed into a severe epileptic convulsion. At the time when I first noticed the pulse to disappear the man's arm was quite still. I tried to feel the pulse during the convulsion, but there was so much muscular movement that I could not distinguish it.

I had never before chanced to have my fingers on the pulse at the moment of onset of an epileptic convulsion, nor have I ever done so since until January 13th of the present year, when I was at No. 1 bed, Philip ward, in which bed was a man who had come in with uræmic vomiting and had been seized with convulsions. At the time of my visit he had come out of the insensibility which followed each convulsive attack, and was in an excited state, staring about rather wildly and endeavouring to raise himself in the bed, and calling loudly the word "Beer!" He was not a temperate person. He then lay quite still and looked quietly about him, his arms lying outside the bedclothes. I took his wrist and felt his pulse, it was forcible and regular. I was feeling it when it quite disappeared from under my finger, many beats being missed. I looked at him, he had become very pale in the face, twitching set in, and he at once went into a very severe epileptiform convulsion. Mr. Lane, my house-physician, then told me that he had chanced to be feeling the pulse at the moment of onset of convulsion in the man during the morning of that day, and that the same thing had happened on two occasions in which he had his fingers on the pulse at the moment of the commencement of the attack. Since then Mr. Lane has made a similar observation upon a girl with eclamptic convulsions in Mary ward. So far, however, it might be said that the failure of the pulse was due to spasm of the arteries of the arms. Now, such a sudden universal arterial spasm would be an otherwise unprecedented thing, and my next observation shows that the supposition of it is not wanted. Three years ago I was examining the heart of a young gentleman who was asking my advice on account of attacks of epilepsy. He was standing, and I had my stethoscope over his heart, and was attending to the quality of the sounds. These sounds stopped suddenly, and so completely that in great surprise I moved to look at him, and saw him with exceedingly pale face, evidently quite unconscious, his balance just lost, and he falling forwards. He went forthwith into severe epileptiform convulsions. Dr. Hughlings Jackson has kindly informed me that he has observed on several occasions the pulse to disappear during the paleness of the face in the onset of attacks of petit mal, and Dr. Hilton Fagge was good enough to send me the following notes of a case:—

"John W——, aged twenty three, consulted me for epistaxis. While I was listening to his heart it suddenly stopped beating. His face turned very pale. He said, "I am going to faint," and sat down in the chair from which he had risen that I might examine him: there was of course no pulse at the wrist. Then his face flushed and his pulse started again; I suppose the attack lasted half a minute. There was distinct twitching of the muscles of one or both hands. I could not observe very well, having to get water, and being alarmed at his condition. On recovering he said that he often had "fainting fits," explaining this by adding "when he cut himself badly more than ten years previously he had had epileptic fits."

A medical friend, whose observation I can well trust, and who has a daughter subject to epileptic seizures, with frequent attacks of "petit mal," writes to me that "her heart appears to stop in every attack."[1]

Now, in inquiries amongst my colleagues and friends, these are all the cases I have been able to meet with in which the state of the circulation has been observed at the first moment of the epileptic onset. There are, of course, very numerous observations upon the state of the pulse when the patient has already fallen. The heart's beat has, however, recommenced, as I suppose is necessary if life is to continue. I do not know how many beats can be entirely omitted without death resulting, but the number must be limited, because the circulation depends on tension in the arteries, and the whole arterial tension must be due to but few heartfuls of blood, so that the loss of few beats would take the tension quite away. I would, however, ask your notice of the fact that most observers, who have felt the pulse just after a person has fallen in an epileptic fit, agree in describing the pulse as small, sometimes imperceptible. It is said, in descriptions of the first stage of the fit, to be sometimes unaltered, but I think this must refer to

[1] At the conclusion of the lecture Dr. Southey informed me that in the only instance in which he had his finger on the pulse at the beginning of an epileptic convulsion he observed the pulse to disappear during the onset of the attack.

the later part of the first stage during which the pulse recovers itself, but the insensibility continues. I have found the pulse present again when the clonic spasms have just commenced. The observations which I have adduced showing failure of the pulse in the first onset of epileptic attacks tend to take away the significance of a very wonderful case which is quoted by Kussmaul from Pereira as some evidence of spasmodic closure of the cerebral vessels. In this case the pulse at one wrist was observed to disappear in the onset of an epileptic attack, and the post-mortem examination showed that the radial artery received its supply through the vertebral from the circle of Willis, a very remarkable anomaly indeed. It is inferred by Kussmaul that in this person the arteries of the brain went into spasm, and the spasm shut off also the blood from the arm, which had the misfortune to derive its supply from so irritable a source. But I think it is reasonable to conclude that in this very wonderful case, what really happened was a failure of the heart's action as in my cases.

Thus, so far as I have been able to learn, the unconsciousness in an epileptic fit is of just the same nature as the unconsciousness in a fainting fit. It has happened to me, as, I presume, to most physicians, to be able to notice the first onset of a fainting fit. Time will not allow me to describe the several occurrences, but in one young candidate for service at a bank, who fainted under examination, the heart's beat ceased as I was listening, and the lad fainted. He was pale throughout the attack, and he retched as he was recovering, and told me that nothing of the kind had ever happened to him before. In the case of a young lady subject to "fainting fits" I observed that the heart stopped beating; she used to fall very suddenly, and slight twitching of the face appeared, nothing more like epilepsy ever occurred, but such attacks are very like epilepsy, and I think that sudden faintings are always to be regarded with suspicion when they take place without sufficient cause of the nature of violent emotion or shock from some horrifying occurrence. Practically the presence of adequate cause of this kind is the readiest distinguishing character of what one might call normal faintness as contrasted with epileptiform fainting; other distinctions lie in the more sudden onset, and the earlier return of colour in epileptiform fainting. These sudden fits of unconsciousness occurring without shock to explain them appear to bear the same relation to the "petit mal" of epilepsy as eclamptic convulsion bear to the "haut mal." I mean that in either of the two parallels the character of the attacks is the same, and the difference is due to the cause of the attack which in fainting, as in eclampsia, is temporary; but in "petit mal," as in epilepsy, tends to produce a recurrence of the attacks. I do not know how the cessation of the heart's action is caused, but I suppose it is through the pneumogastric nerve. It is quite certain that this nerve is capable of inhibiting, as it is called, the heart's action so as to stop it for many beats. So that the power of the pneumogastric to cause the change is beyond question. Whereas I have shown that there is great reason to doubt that spasm of arteries will stop the circulation in the brain so as to produce insensibility. Another fact that points to the pneumogastric as the probable cause of the change is that the gastric branches of this nerve are evidently involved in minor degrees of the condition of fainting. As in the long ago experience of many of us, when the witnessing of sanguinary operations before we were accustomed to such scenes, induced nausea and sinking sensations more or less embarrassing.

Again, Mr. Tom Bird, whose experience in the administration of anæsthetics is very large, and whose care as an observer is well known, tells me that during chloroform exhibition sudden pallor is accompanied by slowing of the pulse, and followed by sickness or retching. Such lesser degrees of faintness evidently refer to a change of action in the pneumogastric system of nerves. Now it is well known that one of the most common of the immediate causes of sudden fainting fits is the sight of blood, or rather of bleeding. And this sudden fainting, which in those who fall at the sight of a cut finger is abnormal, is an extreme example of a depressing action of the pneumogastric nerve, which is in a lesser degree so far natural that a large proportion of young men suffer a feeling like sea-sickness when first they witness a protracted sanguinary cutting operation. So that the blanching and insensibility of the epileptic onset may be reasonably regarded as an effect of pneumogastric inhibition, the initial step being thus an act of the nervous ganglia.

And, indeed, it must be clearly seen that any explanation of the epileptic seizure thus comes ultimately back not to the hydraulic mechanisms of the circulation, but to the seats of origin of the nervous power, in whose endowments lie the mechanism of epileptic convulsion, and in whose action the first impulse must originate when the fit is brought about. But in the cases I have described the next step following this incomprehensible impulse is a very comprehensible stoppage of the heart, with the result of a very comprehensible paleness and insensibility. It is said that paleness does not always occur in the onset of epilepsy. I have observed a livid appearance in the onset of the fit in a very red-faced person. The natural red appearance is, I believe, never retained. There is now under my care an epileptic girl, who also has an extreme degree of inveterate psoriasis, through which her face is reddened intensely with inflammation, yet in the onset of her fits this girl's face becomes very pale.

Starting, then, with a pneumogastric impulse of unknown origin we can, through the cessation of the heart's beat, abundantly satisfy any desire for a hydraulic explanation of the unconsciousness. But we must note that the entirely unknown source of the pneumogastric impulse stands behind our explanation, throwing on it the doubt whether the same unknown impulse which discharges the pneumogastric may not play among the centres where consciousness is seated, and itself involve a loss of consciousness. But, admitting this necessary doubt, we are able to say that the stoppage of the heart's action is itself sufficient to produce the unconsciousness and pallor, so that it is not necessary for us to seek any other explanation of them; and even in the minor degrees of epilepsy, in which there is only a momentary hesitation, as if a blank were suddenly introduced in the continuity of the person's course of action, the stoppage of the heart's beat will explain it, especially as a sense of giddiness accompanies the smallest degrees of such attacks as in epileptic vertigo. For giddiness is, when certainly referable to any change of circulation in the brain, always referable to a diminution of force of the circulation. It very commonly occurs on sudden removal of stress or tension from the venous circulation in the brain, as instanced in the giddiness which is felt on going out of chambers of compressed air, or on rising suddenly from a stooping posture. Very violent giddiness has other and different causes. The extreme giddiness one sometimes meets with, as when a gentleman came to me and begged relief from a giddy attack so violent that when seized he had to call to his daughters to hold him on the floor as he seemed to be falling upon the ceiling. This man's attacks ceased on the occurrence of a paroxysm of gout. Menière's disease offers a frequently applicable explanation of severe giddiness. But there is ample evidence to show that slight giddiness occurs through slight blanching of the brain. So that when in an epileptic subject the face grows suddenly pale, and at the same moment a sense of giddiness is felt, it is reasonable to ascribe all this to failure of the heart, if we have reason to know that the heart fails, and I have endeavoured to show reason to think so. But a fully developed epileptic attack offers us at least three quite distinct occurrences. The first is the initial loss of consciousness, the second the outbreak of convulsions, and the third the state of stupor which succeeds to these. It is a natural and fair question to ask, Will the hydraulic explanation, which suffices for the loss of consciousness, go further and explain the other two terms of the series of events that compose an epileptic fit? Now, either of the three portions of the complete attack may occur almost alone, or, perhaps, quite alone.

In the so-called "petit mal" a partial faint and momentary loss of consciousness are all that happen. In some cases of convulsions a partial degree of epileptiform muscular jactitation is similarly present, and Dr. Hughlings Jackson's name will always be honourably identified with our best thought and knowledge upon this most interesting phase of epilepsy. In other cases the stage of stupor may come on with little evidence of faint or of convulsions, and I think Trousseau has claim to be honourably held in recollection on account of the clearness with which we showed the truly epileptic nature of attacks of this kind, which were, and indeed by some still are, obscured under the designation of apoplectiform cerebral congestion.

This separate occurrence of the three distinct parts of the epileptic attack proves that there is no direct dependence the one upon the other, and yet they are so constantly found united in serial order in the complete epileptic fit that it is natural to look for some causative connexion between them

and to find some way of showing how upon the profound fainting attack convulsions would ensue, and how upon convulsions stupor would follow. If this were positively desirable it would not be difficult to bring in Kussmaul's convulsions from anæmia to explain the onset of the spasmodic movements; for if indeed it be a law of the vertebrate organism that a discharge in convulsion occurs when bloodlessness is on the point of becoming fatal to the life of the brain, then a prolonged stoppage of the heart would fall under such law, and convulsions be the result. Nay, we may further here observe that in a certain degree there is in such a law that kind of adaptation to purpose which it is so great a satisfaction to perceive, seeing that when the heart's beat stops the arteries empty themselves, and then tension is done away, and it requires at least six or seven heartfuls of blood to restore arterial tension; meantime, with the removal of arterial tension, the *vis a tergo* on the whole circulation is lost, and the blood is no longer pushed round in a continuous course, so that it would therefore tend to stop in the veins, and in the abdominal veins alone there is room for the whole of the blood; therefore, with all the blood in the veins, and with no *vis a tergo* to act on them, where should the heart get its six or seven charges of blood to start arterial tension once more? But the veins of the limbs have valves that prevent reflux of the blood, and convulsions compress the veins, and drive to the heart the necessary amount to keep the arteries full.

And, indeed, it is quite probable that this is the purpose or use of the convulsions. Neither does it gainsay such a use that the convulsions become extreme and pass beyond the service for which they are adopted. For take the parallel case of the plainly conservative spasm of a cough whose object is beyond doubt to expel undesirable contents from the windpipe; do we not find cough sometimes so vigorously acting in excess of its duties that we are at our wits' end to find some means of keeping this otherwise beneficent contrivance within due bounds? Likewise also, if we ask why stupor should succeed to convulsions, we may think this, too, a natural consequence of the convulsions, and we may also perceive that it favours recovery. For convulsion is no mere exertion, as in healthy exercise; but it is the exertion of otherwise dying nervous centres called out not by the wholesome influence of sufficient or redundant supply, but brought to pass by desperate starvation, and therefore in the matter of exhaustion not to be put on a par with normal fatigue. Then what more likely than extreme exhaustion, and what better than a short deep sleep in which the senses are, if I may so speak, closed for repairs? An insensibility which is thus negative and whose service is plainly to allow time for the centres to recover themselves, is not of itself to be dreaded nor thought of as a terrible thing. It need not be set down to any overpowering positive cause on the baseless old-fashioned theory of congestion of the brain. But here too, in a more dangerous way, we may find ourselves troubled with an excess of what is designed for good, and just as cough may need checking, and as convulsions may prove extreme, so stupor may be protracted, and the sleep which was intended to refresh may not restore excitability, but become longer and deeper, until the person dies in a state of coma. And the normal stupor of the epileptic attack becomes thus extreme and fatal under conditions that sufficiently explain the occurrence. For such fatal coma never happens in the epilepsy of young or vigorous subjects when the brain is well nourished and capable of quick recovery. It is in old age that it occurs, or at the close of a long course of cerebral exhaustion, especially when an impure state of the blood adds another cause of stupor, as in cases of protracted jaundice, or diabetes, or chronic renal disease, which not unfrequently terminate by a sudden epileptiform coma or in old alcoholism in unstable brains. In these cases essentially epileptic attacks occur in which there is little or no convulsion and the person appears seized with sudden coma. But as a proof of the epileptic nature of such attacks it is remarkable that in the description of them under the erroneous title of "apoplectiform cerebral congestion" it is stated that the pulse disappears at the wrist in the onset. Now, after the cases which I have given I consider this to be evidence of the epileptic nature of these attacks. For clinical evidence of the connexion of such attacks in individual cases with the history of epilepsy I have already referred to Trousseau's lecture on the subject. But if I had time I could give many cases of the kind from my own experience.

CHRYSOPHANIC ACID AND PSORIASIS.

By M. CHARTERIS, M.D.,
PROFESSOR OF THERAPEUTICS AND MATERIA MEDICA, GLASGOW UNIVERSITY, AND PHYSICIAN TO THE GLASGOW ROYAL INFIRMARY.

THE circumstances under which I was induced to try chrysophanic acid, as indicated by the correspondence in your journal, briefly stated, are as follows:—

A boy of nine years of age was admitted into my wards on April 5th last, covered, as the ward journal states, "with a scaly eruption, which came on about three years ago, and gradually extended until it embraced the whole body, being, however, most marked and patchy at the outside of the knees and elbows." He was ordered to be rubbed with the chrysophanic acid ointment (one drachm to one ounce of vaseline), and four days afterwards the nurse informed me that he had been sick and had vomited. On inquiring a little further into the matter, I made the remark to my clinical class, "I wonder if the application of the acid could have done this," and I stated "that I would on a subsequent occasion test the ointment with a view to elucidating the truth." Meanwhile I discontinued to employ the acid to the boy in the same strength, making the proportion half a drachm to the ounce; and he was dismissed well on May 3rd, without any further untoward symptoms. In accordance with the view suggested, the next patient admitted into the male wards was only rubbed with the acid of the same strength on one side of the body—the other being untouched. Both sides healed, but some dubiety existed on my mind, and also on that of my assistant, as to the truthfulness of the patient's statement, for we suspected, in his anxiety to become well, he had surreptitiously applied it to both sides. In the case also during the same summer of a female patient, we were suspicious that the nurse, somewhat inexperienced and zealous, had occasionally and intentionally forgotten the directions given and used it on places we had warned her to avoid. In publishing my clinical retrospect in THE LANCET of last autumn, I alluded to this, and said with regard to the chrysophanic acid ointment: "A singular circumstance was noted—viz., that the acid rubbed in must have some constitutional action, for if applied only to one side of the body it seems eventually, though more slowly, to remove the scales from the other. This observation, though true in one case, was not so marked in another, and would require further verification."

Continuing my narrative, I may state that the next case of psoriasis was admitted on Nov. 18th, 1880. This man, aged twenty-two, had twice before been under treatment in the infirmary for the same complaint, and on both occasions had been treated by arsenic with the result that in six weeks he had left the wards well. The last admission was in 1875, and he stated that since then the eruption had appeared every autumn, but not to any great extent. Six months ago it was very apparent on the elbows and knees, and since then it had spread to the arms and legs, and, as noted now, it is said to extend from the arms and legs over the whole body.

On the 21st Nov. (three days after admission):—One arm and leg were ordered to be covered with close-fitting flannel, and the ointment of the strength previously mentioned to be rubbed in over the exposed parts. On the 1st Dec. the ointment was rubbed in for the last time, and twenty-four hours afterwards a bath was given. On the 6th December it is noted "that the skin on both sides is now clean and smooth, and the patient was dismissed 'cured.'"

In the next case, that of a female aged seventeen, the history and appearance were as follows:—"She had been under treatment three years previously, and had been treated successfully by me with chrysophanic acid. Six months ago the disease appeared again, and at present psoriasis spots are observed on the chest and back, circumscribed and not very numerous. But over the extensor surface of the arm there are large silvery patches, and on the outside of the knees and front of the legs and thighs the eruption is very marked." Stringent precautions were taken in this case to guard against any error in the one-sided application of the ointment, flannel padded with cotton-wool was applied from the upper part of the thigh to the ankle, and secured by tapes so that the ointment could in no way affect it. Two days after admission treatment was commenced by rubbing in the ointment to all the other parts implicated. This "rubbing in" was continued daily for ten days. The

nurse used her hand, not a cloth. Fully two ounces were so used every day for four days, until the scales were thoroughly removed, after that about one ounce only of the ointment was applied. Ten days after the commencement of treatment it was found, on taking off the bandages, that the scales had commenced to disappear, the disappearance being most evident at the circumference. On the centres of the patches a few scales were still observed. The skin was left on the previously scaly surface white and clean. A week later the parts rubbed were completely free from scales, and the parts covered very nearly so, with the exception of one or two spots about the size of a pin head, which were situated on the centre of the previously scaly patch. The patient was ordered a bath, and a small bread and water poultice was applied over the previously covered leg. Three poultices in all were so applied on three successive days, and it was found after that time the skin was left clean and whole, and not discoloured as the other side was by the application of the ointment. In this condition the patient was shown to my class at the university, and I have no doubt they will testify to the appearance mentioned. I may add that the patient remained in the ward after this for a month, but the eruption did not reappear. The total quantity of ointment used in this case on twenty-four applications was thirty-two ounces, of the strength of one drachm to the ounce of lard.

It will be observed from the history of these cases—1. That the ointment was applied with no stinted hand, but, as the nurse states, rubbed in until it had been all absorbed. 2. That the strength of the ointment was perhaps stronger than that generally used—viz., one drachm to the ounce. 3. I venture on no speculation as to how chrysophanic acid may act if given internally. I simply state careful, well-recorded facts with regard to the influence of its one-sided application, and these facts can be corroborated without reservation by many who watched with interest the progress of the experiments.

Glasgow.

ON WOUNDS OF THE KNEE-JOINT.[1]

BY WALTER RIVINGTON, F.R.C.S. ENG.,
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THE object of this communication is essentially practical. Discarding all theory, setting aside all questions concerning germs and bacteria, I am desirous of contrasting the results of wounds of the knee-joint treated according to the rules of Listerism with those obtained under other methods of dressing, and of eliciting experience on both sides of the question. The records of cases occurring before the introduction of strict antiseptic precautions will be especially valuable. As I purpose confining my remarks mainly within the range of my own observation, it will, I think, be most convenient to relate at the outset the most recent example of wound of the knee-joint which has occurred in my practice, and to make it the text of my paper.

The subject of the injury was one Edward G——, forty-six years of age, a cab-proprietor. On the 19th of May, being the worse for liquor, he fell or was thrown from the box of his cab. From alcoholic causes he was unable to give any positive account of what happened, but he was inclined to think that the wheel of the cab passed over him. He was admitted during the evening of the 19th, with a jagged wound over the right patella about the size of a shilling, and looking to the superficial eye as if it were merely a graze of the skin. My house-surgeon, Mr. Lawton, however, found an aperture at the upper part of the wound from which some serous fluid issued. This aperture admitted a probe, and, with some difficulty, the track of a sinus was found leading upwards and outwards for a couple of inches. There was no other injury anywhere. The patient was sent to bed, and an ice-bag was applied to the knee. The following afternoon he was seen by myself. The knee-joint was swollen, looked inflamed, and was considerably hotter to the touch than the corresponding joint on the left side. The natural outlines of the joint were obscured, fluid inside the joint distending it so as to obliterate the hollows which are observable in the normal condition by the side of the patella and its ligament. Some pus could be pressed out of the small aperture at the upper part of the wound. Having heard Mr. Lawton's account of his exploration with the probe, and of the free escape of serous fluid the day before, and having regard to the distended condition of the joint, I thought that it would be advisable to slit up the sinus, and ascertain the condition of the parts beneath the skin. Thinking it probable that there might be a wound of the joint, I procured a steam-spray producer and allowed it to play upon the wound for a few minutes. A director was then introduced into the sinus, and the sinus was laid open. This done, there appeared a jagged hole in the quadriceps extensor tendon above the patella, and through this lacerated foramen I introduced my carbolised finger behind the patella into the knee-joint, and explored the interior. Then I pressed out of the joint a considerable quantity of turbid serous fluid, almost purulent, and injected into it three or four large syringefuls of a solution of carbolic acid (1 in 19). Finally the joint was emptied as far as possible of all fluid, a drainage-tube passed into it behind the patella, and the wound dressed in the usual manner with protective and gauze. A back splint was fixed to the limb. On the 21st the patient complained of a good deal of pain in the knee, and experienced a sinking feeling due to the deprivation of his customary stimulants. The record for the 22nd says—"The patient is much better this morning; has slept well; the knee is much easier." Temperature: morning 101·6°; evening 101·4°. On Sunday evening, the 23rd, I redressed the wound and withdrew the drainage-tube. There was very little discharge. The temperature continued high for a day or two, being 103° on the evening of the 24th and 102° on the 25th, but the patient remained remarkably well and amused himself with reading during the day. Occasionally he had some painful twinges, but there was no constitutional disturbance or swelling of the limb, and he took all his fluid diet with relish. The wound pursued a perfectly normal course, gradually cleaning and granulating healthily, and as soon as some of the tendinous fibres which had been damaged had come away the aperture leading into the joint entirely closed. It is noted that the temperature on the 19th was up to 103°, and on the 21st and 24th to 101°, but there was nothing to account for this record, and the only way in which I can explain it is by supposing that it was due to the absorption of the effusion in and around the joint. The patient remained some weeks in the hospital, as cicatrisation of the superficial wound was slow. He left in July to return to his occupation, sooner than I wished him to do, and before the joint had regained its freedom of movement. When I saw him in August he was walking about, and stated that the stiffness was passing away. A fortnight ago he came to see me at the hospital in excellent health, with a freely movable joint, and in a most grateful frame of mind.

Now whether we are or are not disposed to assign the favourable issue in this case to the Listerian method, it will be admitted that the result is highly satisfactory, and invites us to apply the method without reserve to any wounds of joints which may present themselves in the clinic. Although well aware that "one swallow does not make a summer," I am strongly inclined myself to attribute the freedom from constitutional disturbance and the preservation of a serviceable joint, without the previous exhibition of violent local inflammation and its effects, to the adoption of the carbolic acid treatment, and I am influenced by several considerations, which I will state as briefly as possible. They are considerations arising out of the case itself, out of the experience of surgeons prior to the adoption of the Listerian system, and out of the experience of surgeons who have carried out that system in its integrity. If we regard the case itself we find that the joint had already begun to inflame, and that suppuration was imminent at the time the treatment was commenced. The surface over the joint was hot and tender, and the joint itself contained a considerable quantity of turbid serum. Supposing, under these circumstances, with a burrowing passage leading to bruised tissues destined to slough, and communicating on the one side with the air, and on the other with the cavity of the joint distended with a fluid capable of putrefaction, I had left the case to the *vis medicatrix naturæ*, aided only by rest on a splint, evaporating lotions, and ice-bags, is it reasonable to believe that as good a progress and result would have been recorded? Or supposing that, without going to the extreme of the spray and gauze, I had thought it advisable to assist the *vis medicatrix naturæ* a little further, and had slit up the sinus, had passed my cleansed finger into the joint,

[1] A paper read before the West Kent Medico-Chirurgical and Hunterian Societies

and inserted a clean drainage-tube of any kind after pressing the serum out of the cavity of the joint, or had adopted the same treatment without the drainage-tube again, supplemented with splint, and lotions, and ice-bags, or plaster-of-Paris casing commended by Billroth, would the patient have enjoyed a similar immunity from inflammation of the joint, suppuration, abscesses, swelling of the limb, and constitutional disturbance? Before answering the question bear in mind that the patient was by no means the kind of subject a surgeon would be inclined to select for an experimental wound of the knee-joint to be treated without the most efficient antiseptic precautions, having probably from his youth upwards been accustomed to apply hot and rebellious liquors to his blood. Neither was the wound the most favourable kind of wound, for it was not a clean incision, but a contused and lacerated wound. It was not at the most dependent part of the joint, favouring free escape of effusions, but at the upper part, well adapted for allowing putrefactive changes to spread from the surface to the interior, and run riot in the recesses of the cavity.

Such considerations tend to negative anticipations of a very favourable course and issue to the case if it had been treated merely in accordance with what used to be termed the general principles of surgery. And are not these doubts strengthened by recalling the experience of surgeons before Mr. Lister's doctrines and demonstrations had taken root in London and other great centres of the industrial population? Exclude from consideration, for obvious reasons, the results obtained in the perfectly pure atmosphere of country districts. Every one knows that severe injuries and operations, undergone by healthy persons in an atmosphere free from germs and organic impurities, and treated by the simplest means, may be attended with results which can scarcely be surpassed by the best records offered to us by the disciples of Mr. Lister. My friend Mr. William Forbes, who was house-surgeon at the London Hospital when I was one of the dressers, and who is practising at Sale in Australia, told me not long ago that there was no comparison between the results which he used to witness at the London Hospital and those which he has obtained in his own hospital in serious injuries to limbs and joints. Hence we may fairly set aside experience of this kind, and compare only the results obtained with and without complete antiseptic precautions in the loaded atmosphere of great cities and hospitals. I say complete antiseptic precautions, because, as antisepticism has become fashionable, everyone now professes to treat his cases antiseptically, whether regard be paid only to rest, pressure, and drainage, or some antiseptic application be superadded—cotton-wool, tenax, spirit and lead lotion, tincture of iodine, friar's balsam, thymol, carbolic acid, and the rest.

Now, I believe that the results obtained, say twenty years ago, by surgeons practising only according to the then recognised "general principles of surgery" in cases of wounds of the knee-joint, were very unsatisfactory. For proof of this it is only necessary to recall the grave apprehension with which surgeons of the old school regarded wounds of the knee, whether inflicted by accident or for any purpose by the design of the surgeon himself. A candidate who presented himself for examination at a college or university, and averred that he might be induced to entertain the notion of laying open the knee-joint, would with tolerable certainty have stood an excellent chance of reference to his studies, and at least would have damaged his prospects of a good position in a competition for honours. Refer to works on surgery, which treat of the natural issue of wounds of joints, and especially of the knee-joint, and it will be seen that among ordinary sequences are numbered profound constitutional disturbance, high fever, delirium, great and constant pain, free suppuration, and œdema of the limb necessitating liberal incisions, pulpy degeneration of the synovial membrane, disorganisation of the joint followed either by anchylosis or excision, or amputation, and that under these conditions the life of the patient may be put in peril. Sporadically, now and then, might be met with a triumphant case—a clean incision carefully adjusted, a puncture sealed with collodion, aided by rest and cold, closing kindly without damage to the joint or serious constitutional irritation. To such cases may be added those in which a knee-joint already full of pus has been saved by free lateral incisions. But however successful may have been the treatment of some surgeons who have "refused to listen to the voice of the charmer," there has always been a reverse side to the picture.

(To be concluded.)

ON TRICUSPID STENOSIS.

By BEDFORD FENWICK, M.D.

DISEASE of the tricuspid valves, and especially disease in the form of stenosis, is rarely found. Most authors tacitly acknowledge this by making no mention of its existence. A few specialists give the subject a cursory consideration, and chiefly confine themselves to narrating one or two cases, or enunciating one or two dicta. Firstly, say these, the disease is very rare. For example, Dr. Flint[1] writes: "A direct tricuspid murmur is one of the rare curiosities of medical experience," and Niemeyer[2] remarks that "tricuspid stenosis is extraordinarily rare." Secondly, that it is of congenital origin. Dr. Peacock in his classical Lectures on Valvular Diseases (page 24) refers at length to this theory, and in another place[3] he remarked: "It has been subject of discussion whether these cases are the result of disease before or after birth. I am inclined to believe the former to be the correct view." Rosenstein[4] prefaces a short description, probably taken from Dr. Hayden's work, by saying, "when it does occur it dates from fœtal life."

Finally, two authors, and as far as I can learn only two authors, have hitherto collected cases of this disease. Dr. Hayden of Dublin, in his most elaborate work on Diseases of the Heart, quotes twelve cases. M. Duroziez of Paris collated fourteen cases. His main deductions, however, are that the disease chiefly affects the female sex, and that it is not uncommonly found.

Since the year 1825 there have been at least forty-three cases of this affection recorded in European and American literature. I will briefly narrate the particulars of three others, two of which died last year in the wards of the London Hospital.

Therefore, to commence with, I think it may be allowed that the disease is not "extraordinarily rare." Probably, if this fact becomes recognised it will be more carefully looked for, and more often discovered than hitherto.

The total forty-six cases are summarised in the appended Table (No. 1), and by merely analysing these, I hope to exhibit the salient features, clinical and pathological, of the disease, and by their facts to test the validity of the congenital origin theory.

CASE I. (No. 43 in Table I.)—A. C——, a married woman, aged twenty-four, was admitted into the London Hospital under the care of Dr. Down, at the end of the year 1874. Her previous history showed that she had enjoyed good health till the age of nineteen. She then suffered from an attack of acute rheumatism, from which, however, she recovered well and quickly, and then continued in her usual state of health for three years. She was then attacked again with rheumatic fever, and from that time suffered from dyspnœa on exertion and palpitation. On admission there were great general œdema and ascites, orthopnœa, severe and irritable cough, and great lividity. The point of cardiac impulse was visible between the seventh and eighth ribs, and one inch external to the nipple line. The area of dulness was laterally increased. The heart's action was occasionally tumultuous, always irregular. There was a loud presystolic murmur audible at the apex; systolic and diastolic murmurs at the base. The jugular veins were much distended, the urine scanty, the temperature subnormal, the pulse small and irregular. She gradually sank and died comatose.

On post-mortem the heart was found to weigh 22 oz. The tricuspid valves were much thickened and roughened, and the orifice only admitted three fingers. The right auricle was enormously dilated, measuring 3½ inches by 4 inches. The mitral valves were greatly thickened and contracted, the orifice barely admitted three fingers. The aortic valves were thickened and incompetent. All the organs of the body were in a state of chronic congestion.

CASE 2. (No. 44 in Table I.)—E. C——, an unmarried female aged twenty-nine, a domestic servant, was admitted into the London Hospital in February, 1880, under the care of Dr. Samuel Fenwick. Her previous history was very

[1] Diseases of the Heart, p. 240. [2] Clinical Medicine, vol. i., p. 309.
[3] Pathological Society's Transactions, vol. v., p. 65.
[4] Von Ziemssen's Cyclopædia of Medicine, vol. vi., p. 155.

TABLE I.

No.	SEX.	AGE.	PREVIOUS HISTORY.	SIZE OF TRICUSPID ORIFICE.	SIZE OF MITRAL ORIFICE.	CONCURRENT CARDIAC CHANGES.
1	M.	37	One attack of acute rheumatism at 15 years old.	Barely admitting two small fingers.	Contracted to a like extent.	Aortic valves much thickened. Ventricles much hypertrophied. Auricles dilated and hypertrophied.
2	F.	42	No rheumatic history.	Admitting the middle finger.	Admitting only the point of the little finger.	Great dilatation of the right auricle. Dilatation with hypertrophy of the right ventricle.
3	F.	37	No rheumatic history.	Only admitted one finger.	Only admitted one finger.	Aortic valves disorganised and incompetent. Dilatation and hypertrophy of all cavities, especially the right auricle.
4	F.	37	No rheumatic history.	⅞ in. by ⅞ in. in diameter; 21 lines in circumference.	3-5ths by ½ in. in diameter; less than 2 in. in circumference.	Right auricle aneurismal, measuring 3 in. by 2 in. Aortic orifice thickened, only measuring 3 in. in circumference.
5	F.	20	No rheumatic history.	7 by 6 lines in diameter.	5 by 5 lines in diameter.	Dilatation and hypertrophy of all cavities, especially the right auricle. Aortic valves diseased.
6	F.	23	Not noted.	Only admitting the point of the index finger.	Contracted to an equal extent.	Right auricle much dilated and hypertrophied. Aortic valves incompetent.
7	M.	35	Acute rheumatism 6 years previously.	Only admitting the forefinger beyond the first joint.	Admitted the tips of the two first fingers.	Right auricle greatly dilated.
8	F.	26	No rheumatic history except pains.	Only admitting the tips of two fingers.	Only admitting the point of the index finger.	Right auricle normal. Left auricle greatly dilated. Aortic valves much contracted.
9	F.	26	Acute rheumatism 14 months previously.	Only admitting the tip of the index finger.	Only admitting the tip of the little finger.	Right auricle greatly dilated. Left auricle also dilated.
10	F.	young	Not noted.	Only admitting one finger.	Only admitting the end of the little finger.	Both auricles dilated, especially the right.
11	M.	23	Acute rheumatism at 9 and at 13 years old.	Only admitting the tip of the middle finger.	Only admitting the tip of the index finger.	Right and left auricles much dilated.
12	F.	27	Acute rheumatism 6 years previously.	Only admitting the index finger.	Only admitting the point of the little finger.	Right auricle much dilated.
13	F.	25	No rheumatic history; measles very badly at 16 years.	Only admitting the point of the middle finger.	Only the point of the index finger could pass.	Both auricles, especially the right, much dilated.
14	F.	38	Three attacks of acute rheumatism.	Not admitting the points of two fingers.	Admitting only the forefinger.	Right auricle greatly dilated.
15	F.	30	Acute rheumatism at 13 and at 24 years old.	Only admitting the point of the forefinger.	Only admitting the point of the little finger.	Right auricle excessively dilated. Aortic orifice as small as mitral.
16	F.	33	With a history of rheumatism.	Only allowing one finger to pass.	½ in. long by ¼ in. wide.	Right auricle much dilated.
17	F.	21	Acute rheumatism at 13 and at 19 years old.	Contracted to a narrow crescentic slit.	As tricuspid, but to a greater degree.	Pericardium adherent. Aortic valves rigid and thickened.
18	F.	19	No rheumatic history.	Contracted, rigid, and in places ossified.	Sufficient to admit the tip of the little finger.	Not noted.
19	F.	22	No rheumatic history.	Considerably contracted.	Considerably contracted.	Aortic valves much thickened and considerably contracted.
20	F.	32	Acute rheumatism at 19 and at 30 years of age.	Having a circumference of about fifteen lines.	Similarly contracted.	Aortic valves thickened and incompetent.
21	F.	18	Acute rheumatism 18 months previously.	Much contracted.	Exceedingly contracted.	All the cavities dilated and hypertrophied.
22	M.	21	One attack of acute rheumatism.	Admitted two fingers.	Admitted two fingers.	All cavities, especially the right auricle, greatly dilated.
23	F.	44	One attack of acute rheumatism.	Admitted two fingers.	Only admitted the end of the little finger.	Aortic orifice insufficient.
24	F.	46	No rheumatic history.	Admitted two fingers.	Only admitted one finger.	Aortic orifice stenosed and incompetent.
25	F.	37	No rheumatic history.	Admitted two fingers.	Only admitted the little finger.	Aortic valves slightly incompetent.
26	F.	40	One attack of acute rheumatism.	Only admitted one finger.	Only allowed a large quill to pass.	Aortic orifice contracted and incompetent. Left auricle dilated.
27	F.	58	No rheumatic history.	Admitting one finger.	Admitting one finger.	Aortic valves incompetent.
28	F.	27	Repeated rheumatic pains.	Only admitting the point of the index finger.	Not quite so small as the tricuspid.	Not noted.
29	F.	36	No rheumatic history.	Only admitting one finger.	Hardly admitting the end of the little finger.	Aortic orifice much contracted.

TABLE I.—*(Continued.)*

	SEX.	AGE.	PREVIOUS HISTORY.	SIZE OF TRICUSPID ORIFICE.	SIZE OF MITRAL ORIFICE.	CONCURRENT CARDIAC CHANGES.
30	M.	64	Repeated rheumatic pains.	Only admitted one finger.	Only admitted one finger.	Not noted.
31	F.	29	No rheumatic history.	Admitted two fingers to the first joint.	Only admitted the end of the index finger.	Right auricle greatly dilated.
32	F.	30	Several attacks of acute rheumatism.	Only admitted one finger.	Only admitted a quill.	Not noted.
33	F.	34	No rheumatic history.	Very considerable contraction.	Very considerable contraction.	Aortic orifice stenosed. Heart hypertrophied.
34	F.	23	No rheumatic history.	Very pronounced contraction.	As the tricuspid.	Aortic orifice thickened and contracted.
35	F.	21	History of acute rheumatism.	Only admitted one finger.	Greatly contracted.	Aortic valves incompetent.
36	F.	43	No rheumatic history.	Nearly 1 in. in length and ½ in. in width, of a half-moon shape.	About ¾ in. by ½ in.	Right auricle somewhat dilated. Left auricle enormously dilated.
37	F.	42	No rheumatic history.	Just admitting the little finger.	Not admitting the end of the little finger.	Right auricle considerably dilated and hypertrophied.
38	F.	37	Acute rheumatism at 21 and at 26 years of age.	¾ in. in diameter.	¾ in. in diameter.	Right auricle considerably dilated.
39	F.	37	No rheumatic history.	Stenosed. Obstruction had been great.	Stenosed.	Aortic orifice roughened and contracted. Right auricle much dilated.
40	F.	17	Very hard life. No rheumatic history.	Admitted two fingers.	Scarcely admitted the point of the little finger.	Right cavities dilated. Left cavities dilated and hypertrophied.
41	F.	33	Not noted.	About two fingers' size.	About that of two fingers.	Aortic valves thickened and opaque. Both auricles exceedingly dilated.
42	F.	40	Not noted.	A small contracted circular aperture.	Semilunar fissure, scarcely admitting the handle of a scalpel.	Aortic aperture barely admitted the tip of the index finger. Both auricles dilated. Left ventricle hypertrophied.
43	F.	24	Two attacks of acute rheumatism.	Just admitted three fingers.	Just admitted three fingers.	Aortic valves thickened and incompetent. Left auricle enormously dilated, measuring 3½ in. by 4 in.
44	F.	29	Acute rheumatism at 18, at 27, and at 28 years of age.	Circumference of only 2 in.	Circumference of only 1¾ in.	Great dilatation of right auricle. Constriction of aortic orifice. Circumference only 1¾ in.
45	F.	48	A history of acute rheumatism.	Much contracted.	Much contracted.	Recent pericarditis. Aortic valves incompetent.
46	F.	26	Acute rheumatism 3 years ago.	Admitted only tip of one finger. ¾ in. in length, ¼ in. broad, 1¼ in. in circum.	¼ in. in length; ¼ in. in breadth.	Much dilatation and hypertrophy of all the cavities, especially the right auricle.

NOTE.—A column of references has been omitted from want of space. Its information has been condensed in the form of a bibliography given at the end of this communication.

interesting and very important. She enjoyed good health till she was eighteen years of age. She then suffered from an attack of acute rheumatism from which she seemed to recover perfectly, and continued in her usual health for nearly four years. Then one day while carrying a heavy child she was suddenly seized with pain in the left side and great dyspnœa. She came as an out-patient to the London Hospital, was "told only to rest, took some medicine, and the pain gradually went." From that time, however, she suffered from some dyspnœa on exertion. Five years after this, in 1878, she was admitted into the hospital for jaundice, and I find it was then noted that there was a presystolic murmur localised at the apex, and a faint systolic "whiff" audible at the base. During this year she suffered from a second attack of acute rheumatism. The following year, 1879, she was admitted with a third attack of that disease, and I find it now noted that the presystolic murmur at the apex was loud and rough, and that moreover there was a harsh systolic murmur at the base, other cardiac signs remaining as previously noted. Finally, in the beginning of 1880, she was again admitted. It was now found that these signs still persisted, but that, in addition, the presystolic murmur, instead of being, as heretofore, distinctly localised at the apex, which throughout had shown its impulse an inch and a half below and external to the left nipple, was now audible also over a large area and very distinctly at the left margin of the ensiform cartilage. The area of cardiac dulness was laterally increased, extending to the right edge of the sternum, and pulsation was strong and diffused over the whole of this area. There was a well-marked thrill sensible at the apex and at the fourth left interspace. The main clinical features were cyanosis, orthopnœa, cough, distension of the jugulars, feeble and very slow pulse (42), with intermittency and irregularity. The temperature was subnormal, the urine varied from 50 oz. to 10 oz. per diem, and contained albumen.

The autopsy revealed great increase in the size of the heart, the left cavities and the right auricle being much dilated. The tricuspid, mitral, and aortic orifices were all much thickened and contracted, the tricuspid having a circumference of 2 in., the mitral a circumference of 1⅞ in., and the aortic 1½ in. All the other organs of the body were in a state of chronic congestion.

CASE 3. (No. 46 in Table I.)—R. A——, an unmarried female, a domestic servant, aged twenty-six, was admitted into the London Hospital in July, 1880, under the care of Dr. Samuel Fenwick. Three years previously she had suffered from a severe attack of acute rheumatism. Till then she had always enjoyed fairly good health, but from that time she suffered from dyspnœa, cough, and palpitation. On admission the main clinical features were cyanosis, orthopnœa, much distension of the jugulars, and anasarca. Pulse very small and quick (96), and fairly regular. Urine very scanty (18 oz. to 10 oz. daily), containing albumen. Temperature normal. The point of cardiac impulse was just below the left nipple, and on the nipple line. The

area of dulness was square-shaped, measuring 4 in. by 4 in., and extending beyond the right margin of the sternum. There was a well-marked presystolic thrill sensible over the greater part of this area, and chiefly it was noted to the right of the nipple. A loud presystolic bruit was heard, loudest to the right of the nipple, but audible also to the left; and it was remarked by Dr. Samuel Fenwick that the point of greatest intensity of sound shifted from side to side, never being equally loud over both sides of the heart at the same time. Occasionally there was a tumultuous cardiac action, and then pulsation was visible over the whole of the left chest.

The autopsy revealed a much enlarged heart (weight 18 oz.); the auricles much dilated, especially the right; the ventricles dilated and hypertrophied; the mitral valve was greatly thickened and rigid, and the orifice contracted to a narrow slit, one-third of an inch long by about a quarter of an inch broad; the tricuspid orifice greatly altered, the edges of the valves being so united that they were converted into a kind of curtain stretched between the right auricle and the right ventricle. In the centre of this curtain there was a small, almost circular, orifice, three-eighths of an inch in length and a quarter of an inch in breadth, and having a circumference of only one inch and a quarter. All the other organs were in a state of chronic congestion.

(To be concluded.)

A NEW AND CONVERTIBLE SURGICAL APPARATUS.

BY JOHN WARD COUSINS, M.D. LOND., F.R.C.S.,
SURGEON TO THE ROYAL PORTSMOUTH HOSPITAL.

I BEG to introduce to the notice of the profession a very simple and convenient apparatus, which can be used for a great number of surgical purposes by making slight alterations in the component parts. Its special feature consists in the application of lever action over the bed without weight or contact with the bed itself. By a mechanical contrivance of great simplicity a lever is sustained immovably in any position, and by this means many of the ordinary surgical instruments, including the fracture swing, the bed cradle, the extension pulley, the bath hoop, the splint elevator, and bed rest are reduced to the form of one efficient, portable, and economical apparatus. The following is a short description of some of the principal applications.

The bedclothes elevator (Fig. 1) is adapted for every case

FIG. 1.

in which part or all of the bedclothes must be raised from the body of the patient. It can be instantly applied and adjusted to any part of the bedstead, and it will be found both in hospital and private practice far more convenient and comfortable than the old-fashioned bed frame. It never comes in contact with the patient, and never rests on the bed. It can be adjusted inside or outside the bedclothes, and it can be also regulated to elevate them any convenient height from the patient. The elevator serves also many other useful purposes. It will suspend a weight or ice-bag in any position, and it can be converted into a very convenient stand for a vessel or lamp.

Extension by weight is now universally employed in many forms of injury and joint disease, and this kind of treatment is regarded by all surgeons as extremely simple and efficient. Fig. 2 represents the bedclothes elevator fitted with an

FIG. 2.

extension pulley, which is suspended by means of a sliding bracket from the back of the instrument, and is thus capable of adjustment at any convenient height. A sliding collar, with a clamp working on a hinge, is also supplied for the purpose of fixing securely the upright to the bedstead in those cases in which counter-extension is obtained by raising the foot of the bed.

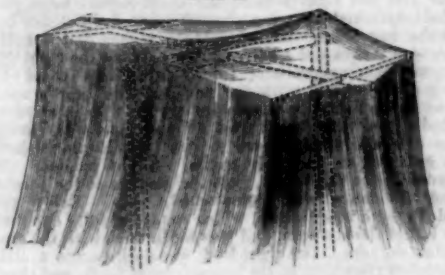
The fracture swing, Fig. 3, is another application of this

FIG. 3.

apparatus. The swing is supported by two uprights, which are secured to the sides of the bedstead. It can be used with any kind of ordinary splint, and it supports the limb at any required height; at the same time it can be used to swing both legs, if necessary, without any addition to the apparatus. Moreover, it occupies no space in the bed, permits a free circulation of air under the bedclothes, and does not require to be removed in

dressing the limb. The apparatus is also convertible, by a very simple arrangement of wooden rods, into an elevator of the entire bedclothes, which will be found of great service in the application of hot-air and vapour-baths (Fig. 4). The cross-bar can also be placed over the

FIG. 4.



bed for a rest in cases of lung or heart disease, in which the patient is unable to lie down, and a wooden stand can be adjusted on it to hold an inhaler, or other vessel. The elevator can be used as a splint rest, and it will be found useful in all cases in which a limb requires elevation (Fig. 5).

FIG. 5.

Special iron wire splints fitted with shifting bars and movable hand and foot pieces, form a part of the apparatus, and by means of a sliding metal rest they can be adjusted on the cross-bar at any convenient height. This method of elevation will be found very convenient in practice, and is especially adapted for the treatment of injuries and fractures, wounds of the hands and feet, amputation cases, and many other diseases in which absolute rest and elevation of the limb are essential.

Southsea.

THE MILK FEVER EPIDEMIC IN ABERDEEN.

BY J. M. GORDON PIRRIE, M.D.

IN the city of Aberdeen an epidemic of a novel character has mysteriously appeared in our midst, which has been properly or improperly named, *pro tempore*, the Old Mill Reformatory Milk Fever. The reason why it has received this appellation is from the fact that all the persons affected with the ailment, the symptoms of which will be presently described, have been partaking of milk supplied from the dairy in connexion with that institution; and no one has as yet been affected, so far as I am aware, who has not used the above-mentioned milk.

The first case of this epidemic which came under my notice occurred on April 1st. Since then fifty-eight families in Aberdeen, comprising over two hundred individuals, have been affected with this peculiar ailment. Three cases have terminated fatally.

Symptoms.—The patient, the subject of this disease, who, in most cases, has been up to the moment of seizure enjoying the best of health, is suddenly seized all over the body with a cold sensation and frequent rigors. This state of matters lasts in some cases for twelve or sixteen hours, and for a time all attempts on the part of the physician or of the patient's friends are fruitless to restore to the patient his natural feelings of warmth. During this cold stage or period during which rigors occur the skin is hot and dry. The pulse becomes rapidly and greatly accelerated, and in two cases under my observation amounted to 135 beats per minute. Another striking feature in this ailment is the sudden rise of the temperature of the body to 103° F. In two cases the temperature rose to 105° F., and remained at that high figure for nearly twelve hours. Variations of temperature do not occur as in some other cases of fever, it being as high in the morning as at night. The patient complains of intense thirst, great prostration, pain in the head, neck, back, and limbs, and sickness, which is usually accompanied by fits of vomiting and violent retching. The matter vomited has at first been the contents of the stomach and afterwards mucus mixed with bile. Pain in the head is a prominent and early symptom, but the character of this pain varies. Sometimes it is described by the patient to be of a bursting nature, at other times as if the parietes of the cranium were being drawn together and the eyes drawn inwards. The pupils of the eyes do not appear to be affected in any way. In one case the sensation of weight in the head was so great that the patient was unable to move the head on the pillow.

Perhaps the most striking feature in this complaint, along with the sudden appearance of rigors, the quick and great rise of the pulse and temperature, is the rapid and painful swelling of the glands and muscles of one side of the neck, and in the cases I have seen it has been the left side of the neck that was affected. In one case the glandular swellings extended down the neck to within two inches of the clavicle. These swellings of the glands and muscles are very painful under pressure.

Sore-throat is also complained of by the patient, and on examination I found only the tonsil on the affected side of the neck inflamed and slightly swollen. The amount of inflammation and swelling of the tonsil, the surrounding tissue, and the mucous membrane, was not at all in ratio to the amount of pain complained of. Two patients experienced a feeling of great tightness about the œsophagus and trachea, and in these cases difficulty of swallowing was present, but I could not discover any sufficient cause to account for it. In another case difficulty of breathing was experienced for several hours, which, however, subsided by causing the patient to inhale the steam of hot water. The shivering, the pain in the head, the sickness, the swelling of the glands and muscles of one side of the neck, and the soreness in the throat, usually appear in rapid succession. The tongue is coated with a yellowish-white fur, while its edges appear to be more red than natural. The urine is very acid, high-coloured, scanty, and loaded with urates; no albumen was present in any of the samples which I examined. The bowels are usually constipated; diarrhœa has not been present in any of the cases under my observation. The patient feels very uneasy and restless. Sleep is disturbed, of short duration, and unrefreshing. Delirium has been present in some cases. After the patient has been sharply purged, and diaphoresis thoroughly established, the pulse and temperature fall somewhat rapidly, the painful glandular and muscular swellings decrease, the sickness and vomiting abate, and in two or three days the patient may be said to be convalescent. A relapse of all the symptoms has occurred, in most of the cases under my notice, a day or two after the patients were convalescent; and, in such cases, it was always the glands and muscles of the opposite side of the neck from those first affected which became painful and swollen. One patient who was in a delicate state of health previous to being attacked with this complaint has had three relapses, but the symptoms during the relapses have been less severe than those at the onset of the disease in all the cases under my notice. The treatment I adopted, and which was successful in the cases under my care, was frequent purging, the administration of saline diaphoretics until diaphoresis was well established, and, after the more urgent symptoms had abated, I found the greatest benefit to follow the administration of quinine along with the most nourishing food, accompanied by a well-regulated amount of stimulants. A sample of the milk in question

was put into Professor Brazier's hands on Tuesday, the 5th of April, to be chemically examined, and the following is his report:—

"The sample of milk chemically considered appeared to be one of fair average quality. The proportion of water and of saline matter was by no means abnormal, and gave no reason for suspecting any admixture or adulteration therewith. The only thing that attracted my attention was the somewhat rank odour possessed by the milk, and which manifested itself the more by allowing the milk to rest for a time in a vessel half full and loosely covered. If, as I have been led to believe, the milk in question has been blamed for giving rise to a series of sicknesses, the investigation as to the cause must be handed over to the pathologist or physiologist or both to determine, rather than the chemist."

By order of the proper authorities, a thorough investigation is now being carried on regarding the origin of this epidemic, and it is to be hoped that the cause of this serious disease may ere long be conclusively determined beyond all doubt.

Aberdeen.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, VICTORIA PARK.

CASE OF SECONDARY INTRA-THORACIC CANCER; NECROPSY.

(Under the care of Dr. THOROWGOOD.)

LOUISA B——, aged forty-three, married, was admitted on Nov. 8th, 1880, and the following history taken:—She had had twelve children, eleven born prematurely and dead; the other died in childhood from bronchitis. Six or seven years back she first noticed a lump in left mamma, which continued slowly but painlessly increasing for three or four years ago, when tearing pain supervened in that region. She went into the German Hospital at Dalston, and had the breast removed in June, 1879. About a fortnight before admission into Victoria Park Hospital she noticed a small hard lump close to the cicatrix on the left side, and at the same time two or three lumps in the right axilla. About the beginning of August, 1880, she first found her breathing to be oppressed, the dyspnœa coming on rather suddenly. Cough, with muco-purulent sputa and night-sweats, came on, but no hæmoptysis. She had suffered a great deal of pain under the upper part of the sternum, and at the right lower part of the chest in front. She had been in bed since the end of September, gradually getting weaker. Appetite very bad. Was getting much thinner, and the dyspnœa increasing.

On November 9th she was examined by Dr. Thorowgood, and the following notes were taken:—The patient has a cachectic appearance; there is a small nodule in the site of the old cicatrix over the left mamma; one or two enlarged glands in the left axilla; several enlarged glands in the right axilla, and above the right clavicle. No œdema of feet; under the left clavicle percussion-note fair; breathing harsh, with prolonged crowing expiration, heard all over the left front. Under the right clavicle resonance good to the second rib, where dulness commences and continues to two fingers' breadths below the level of the ribs. Respiration is bronchial, mixed with sonorous and subcrepitant râles. At the level of the third rib sounds are weak, and at the right nipple inaudible, also in the right axillary line. The liver appears depressed below ribs and is very tender. Posteriorly, the left back is resonant, and the respiratory murmur loud and strong. At the right supra-spinous fossa breathing is heard, but cough resonance not increased. Crepitation in the right vertebral groove, at the right base the respiration *nil*, vocal vibration *nil*.

On the 27th paracentesis thoracis was performed in the sixth interspace at the anterior axillary line, and about one ounce of blood-stained serum was withdrawn. (This was not examined with the microscope.)

On Dec. 4th paracentesis was repeated in the fifth interspace at the anterior axillary line. No fluid was withdrawn. On the 31st the right side of the chest looked large and rounded; cyrtometer tracing showed marked difference between the two sides. Right, eighteen inches and a half; left, sixteen inches and a half. Below mamma the right did not move with respiration; intercostal spaces could be scarcely distinguished with the fingers. The heart's apex was one inch outside the nipple line in the fifth interspace. Vocal vibration was absent over all the right side, except at the extreme apex, where it was much diminished. Veins enlarged in the right axilla. Slight œdema. On percussion at the right apex, from the clavicle to the second rib the resonance was high-pitched, boxy. Below the second rib there was dulness, which extended fully one inch to the left of the sternum, and was continuous with the area of cardiac dulness. The right back was dull, except a little high-pitched resonance at the supra-spinous fossa, and there was some obscure resonance in the vertebral groove. The dull area presented a feeling of solidity to the fingers, and considerable resistance to percussion, hardly suggestive of a large fluid effusion. At the left back the resonance was normal. On auscultation at the right apex, front and back, there was some vesicular breathing, with prolonged expiration. Below the second rib in front the breathing-sounds were, for the most part, absent. Feeble bronchial breathing was heard all over the lung behind down as far as the base. The signs were similar in the right axilla; no bronchophony; heart sounds audible over the whole of the right back and side. There was no pleural friction; right side vesicular breathing; vocal resonance rather increased. The heart sounds were clear; no pericardial friction; no evidence of any pressure on vessels or nerves of thorax or œsophagus. During the last few days a small irregular lump, fixed and painful, had appeared at the inner border of the right mamma. Sputa for the last fortnight abundant, frothy, of light amber colour; microscopic examination revealed epithelial elements, but nothing specially distinctive of the intra-thoracic disease. Treatment, which consisted in the administration of small doses of iodide of arsenic, liquid extract of ergot, and, lastly, pills of Chian turpentine, exercised no influence over the extension of the disease, and after much increase of dyspnœa the patient died on January 22nd 1881.

The post-mortem examination was made fifty hours after death by Dr. S. West and Dr. Lawrence Humphry, notes being taken by Mr. Batson. Moderate height; not much emaciated; no rigor mortis. Right side of chest markedly bulged. In site of left mamma a long healthy cicatrix. Above this was a small hard nodule, which, on section, was soft medullary cancer. Skin over right mamma adherent; the mamma and surrounding tissues were adherent to the chest-wall; numerous small hard nodules upon the sternum and ribs. On removing the skin and making a section of the mamma these nodules were found to be cancerous. On opening the abdomen the liver was found enlarged and depressed, the whole peritoneum and omentum were thickly sown with small nodules, most numerous along the attachment of the large intestine, but also abundant in the mesentery. The lumbar glands were slightly enlarged. In the pelvis all the organs were matted together, especially posteriorly, where the nodules were most numerous. Both ovaries were converted into cysts, the left two inches in diameter and loculated. Liver weighed 4 lb. 5½ oz., and contained a few secondary deposits of very small size. Along the suspensory ligament the cancer had spread, but remained almost entirely in the capsule. The kidneys and spleen were congested. The left suprarenal capsule contained several nodules, the largest in the medulla. The diaphragm on the right side stood very low and was slightly convex downwards. The left lung was bound down by loose adhesions, consequent upon pleurisy, and which was due to small disseminated nodules in the visceral pleura, chiefly on the posterior surface. There were no nodules in the lung. The heart was displaced to the left; no fluid in pericardium; heart normal. From the pericardium, extending upwards to the top of the sternum, occupying the whole of the mediastinum, was a solid mass, extending through the intercostal spaces to become continuous with the nodules described in the skin. This was clearly cancer. It had

involved the whole of the right pleura and diaphragm, the lung being collapsed, and forming a solid, airless, and adherent mass in the upper part of the chest. Below was a large cavity, filled with blood-stained fluid, the walls formed by the cancerous pleura and diaphragm. Dr. Humphry examined sections of the thickened pleura under the microscope, and observed scirrhous cancer extending from the pleura into the lung between the alveoli.

Remarks.—It was interesting to observe in this case how the cancer had spread along the serous surfaces. Only one or two small nodules of cancer were found in the liver, and the lung was pressed and collapsed by the thickened pleura. The under surface of the diaphragm and the serous membranes of the abdomen were thickly studded over with cancer, while the kidneys and spleen were simply congested. In exhibiting the specimen before the Pathological Society, on March 15th, Dr. West suggested that the failure of the attempts to draw off the fluid by thoracentesis was due to the rigid condition of the walls of the cyst, which would not allow it to collapse.

SUSSEX COUNTY HOSPITAL.

CASE OF STRICTURE OF RECTUM IN A BOY; COLOTOMY; RELIEF.

(Under the care of Mr. N. P. BLAKER.)

FOR the following note we are indebted to Dr. J. C. Uhthoff:—

William E——, aged sixteen years, was admitted on November 6th, 1879, complaining of offensive discharge from the rectum and painful defecation. He was an errand boy in a shop, and had been sent to the hospital by his employer, who complained that the smell emanating from him was so offensive that his shopmates could not endure it. He was a somewhat undersized lad and looked pale and ill in the face. He said that he suffered much pain in the rectum, and that defecation, which was painful and frequent, was accompanied by the discharge of blood and mucus. He was quite well until six months before, when pain in the abdomen, followed by the rectal symptoms, commenced. During this time he lost flesh and strength. He stated that his mother died of a similar complaint.

Examination of the rectum revealed a tight annular stricture about an inch or an inch and a half above the anus; the tip of the forefinger could be passed into it, but nothing more. The surrounding tissues were very hard and firm, and nodular in parts; but nothing in the way of ulceration could be felt, and the hardness was rather that which characterise firm fibroid tissue than the stony hardness of malignant disease. On withdrawing the finger, it was found covered with very offensive blood-stained mucus. After his admission he was treated with mild aperients to soften the fæces, with morphia suppositories to relieve the pain and tenesmus, and with solution of perchloride of mercury and iodide of potassium, as it was thought that the stricture might be of a specific nature. His condition varied; at times he seemed easy and the abdomen flaccid, and he was able to get up and about; at others he had much pain and tenesmus, and the abdomen was distended. The condition of the stricture remained much the same, and the motions were always narrow and offensive from the presence of muco-purulent matter.

Towards the end of January, two and a half months after his admission, the symptoms of obstruction were somewhat pressing, and it was decided to perform colotomy in the left loin. The abdomen was much distended and very painful, and any attempt at defecation was accompanied by much increase of pain; the general condition was also unfavourable, and the boy was evidently failing. The operation was performed on January 31st by Mr. Blaker, under anæsthetic mixture of alcohol, chloroform, and ether. The oblique incision was made use of, and great assistance in finding the colon was afforded by passing a small catheter through the stricture of the rectum, and distending the bowel with air.

A large quantity of liquid fæcal matter passed through the artificial opening during the next few days, and the relief of the obstructive symptoms was marked and rapid. The operation wound healed well, though slowly, and with a considerable amount of inflammation. The patient rapidly regained flesh and strength, and left the hospital on June 21st, 1880, to return to work. The bowels acted regularly through the artificial anus; a slight discharge still continued from the rectum, but was not accompanied by any pain, was seldom blood-stained, and had but little offensive odour; the stricture appeared in much the same state as on his admission.

It should be added that as he was recovering from the operation he was troubled by the occurrence of an ischio-rectal abscess, which after its discharge left a fistulous opening on the left side of the anus, and about an inch and a half external to it.

He was readmitted on February 5th, 1881, complaining of pain and swelling on both sides of the anus. Since his discharge in June he had been at his work, and had continued to improve in general health. He had had, as a rule, but little discharge from the rectum, and little or no pain. The bowels had acted well through the loin, but he had been somewhat troubled by prolapse at the opening. There was now redness, swelling, and tenderness on each side of the anus; the swelling was very hard and irregular, and some doubt was felt as to its cause. But in a few days pus was discharged from either side, and the local inflammatory signs subsided, leaving two small fistulous openings. That on the left side passed to the rectum, about an inch above the anus and just below the stricture; that on the right side passed more deeply, and if it opened in the rectum must have done so above the stricture.

At the end of March the boy was still in the hospital and helped in the ward; his general health was good and he looked fat and well; but the stricture remained as tight as ever, and the fistulæ continued to discharge.

Remarks.—The particular interest attaching to the case is its rarity; no similar case being apparently on record. The nature of the stricture is very doubtful, that it is malignant is improbable, for the boy is fat and well, and the growth shows no signs of breaking down or invading surrounding structures; that it is syphilitic may be more likely, but there is no other evidence to uphold such a diagnosis.

Medical Societies.

ROYAL MEDICAL & CHIRURGICAL SOCIETY.

Vascular Protrusion of the Eyeball.—Nephrectomy by Lumbar Section.

AT the ordinary meeting of this Society, held on the 12th instant, Dr. Barclay, President, in the chair, a paper was read on a case of Vascular Protrusion of the Eyeball by Mr. Charles Higgens, of which the following is an abstract:—The case was that of a woman aged forty-two. The disease appeared to have arisen spontaneously, and had been gradually progressing for six months. The symptoms were not very urgent, but increased steadily in severity in spite of rest, low diet, ice to the head, and purgatives. Six weeks after admission the common carotid was ligatured, with the result that a complete cure was effected, and the patient left the hospital two months later perfectly well. The daily progress of the case was given. At one time there was hemiplegia, which entirely passed away; otherwise no dangerous symptoms arose. A sketch of the patient's eyes was shown taken a week before the operation. Abstracts of two other cases were given.—Mr. HOLMES asked whether the pulsation had recurred, for if so the ligature of the carotid would have been without permanent effect. The real nature of these cases was obscure; in some an aneurism was said to exist, but this appeared uncertain. In the two cases related in the paper, where an examination was made, there did not appear to be anything like aneurism, and nothing which could have called for ligature of the carotid. Mr. Higgens's case resembled others which do as well when left alone. Ligature of the carotid was only justifiable when the disease is increasing and threatening life. In Mr. Rivington's case pressure on the carotid failed, and so did injection of perchloride of iron. Mr. Holmes had seen cases where the protrusion had remained stationary for years.—

Mr. HIGGENS had seen the patient last week; there was no pulsation in the superficial vessels on that side of the head. He would not be in a hurry to ligature the carotid again, for he had seen another case since with more urgent symptoms and blindness, the symptoms afterwards subsiding. The question was how long should one wait before resorting to ligature? In the case related compression of the carotid did no good, nor did rest and the application of ice, and, as the symptoms increased, ligature was done.

Mr. ARTHUR E. BARKER then read a paper on Nephrectomy by Lumbar Section. The basis of this paper is a record of two cases in which the author had recently performed nephrectomy by lumbar section for calculous pyelitis. But before considering them in detail, a brief review is given of the whole question of excision of the kidney in the light of all those cases he has been able to collect. Referring to a paper published in last year's Transactions of this Society, in which he tabulated 28 cases of this operation, he points out that of this number 14 recovered and 14 died; but that, deducting those 6 cases in which the operation was performed upon a wrong diagnosis or undesignedly, there remained 13 recoveries and 9 deaths. Passing on then to the new collection, 26 in number, he shows that 12 recovered and 14 died in the gross; or, making the same deduction as above (of 5 cases) that 11 recovered and 10 died out of the remaining 21. Adding the latter to the 22 designed nephrectomies of last year's table, he finds that, out of the resulting 43, recovery took place in 24 and 19 died. Two recoveries where nephrectomy was not premeditated might further be added to these 24. The causes of death in the 28 fatal cases of the combined tables are shown to be as follows: Peritonitis, 8; shock and collapse, 5; pyæmia, 2; uræmia, 2 (in one of these the other kidney had been destroyed by old disease; in the second it as well as the liver was found in a state of advanced fatty degeneration); wound of pleura, with consequent collapse of lung, 1; pulmonary thrombosis, 1; hæmorrhage during operation, 1; after operation, 2; exhaustion of vomiting, 1; œdema of lungs, with marked dyspnœa, 1; exhaustion from suppuration, 1; unrecorded, 3. Of the 9 fatal cases out of these 28 where nephrectomy was unpremeditated, 4 died of peritonitis; 1 of hæmorrhage during, and 1 after operation; 1 of suppuration and exhaustion; 1 of œdema of the lungs with marked dyspnœa; and in 1 the cause is not recorded. Of the two modes of operation—i.e., in the lumbar region and in the linea alba—the first shows the largest proportion of recoveries, but the author regards the mere numerical analysis of the cases as liable to mislead on this point in view of the varying nature of the conditions for which the operation was undertaken. A careful perusal of all the original records is alone to be relied upon for estimating the two methods correctly. The histories now recorded are briefly as follows: A married woman, aged thirty-two, was admitted into University College Hospital on June 16th, 1880, on account of a rapidly growing tumour in the left abdomen, first noticed seven weeks before, and accompanied by pain and much lassitude; the pain had existed since patient was five years of age. The tumour on admission measured 14 by 4½ inches, was smooth, and fluctuated obscurely. Diagnosis: Pyonephrosis probably due to calculus. On July 2nd the tumour was aspirated from behind and 18 oz. of fetid pus withdrawn. The next day it had refilled. Nephrectomy was performed on July 5th through an incision made downwards and forwards from midway between the last rib and crest of ilium for four inches. The enormously thickened capsule of the kidney was soon reached, and its removal with the contained kidney attempted. After considerable loss of time and blood from the vascular and inflamed tissue this line of action had to be abandoned on account of the extremely wide-reaching attachments of this mass of fibrous investing material. The organ itself was then sought for and was easily shelled out of its capsule with the finger and without loss of blood. The pedicle was tied with silk, not without difficulty, and the organ was cut away, after which some twigs spouted and had to be ligatured separately. The whole operation was conducted under Listerian antiseptics, and lasted one hour and ten minutes. The patient died three hours after its completion, of shock. The autopsy showed that it would have been next to impossible to have removed the capsular structures with the organ. They now lay as a great hollow mass of fibrous tissue attached to the spine. Enucleation of the organ alone ought to have been aimed at from the beginning. No bleeding had occurred after the operation, and the peritoneum was not torn. The next case is that of a woman, aged thirty-eight, to whom an operation for calculous pyonephrosis had been proposed seven months before and refused. The kidney was not at that time much enlarged, though a large stone was found in it by means of an aspirator needle. Six months later the patient requested the author to readmit her into hospital and perform any operation for her relief he might deem advisable, as she had suffered very severely in the interval, and was losing ground. On readmission she was very emaciated and bedridden on account of pain, the slightest movement even in bed causing much distress. On Oct. 5th an operation was undertaken with a view to remove the stone if possible, and if not, of excising the kidney containing it. An incision was made from the middle of the twelfth rib downwards and forwards for five inches, and the kidney rapidly exposed. An aspirator needle was then thrust into the organ and the stone struck, about two ounces of pus being withdrawn. A vertical incision was now made down to the calculus with a Paquelin's cautery knife through the cortex of the organ. The stone was very firmly fixed, and, when drawn on with a forceps, broke, one-half only coming away. Very great difficulty being apprehended in removing the remaining half, the excision of the whole organ was determined on. Warned by the last case, the surface of the kidney itself was sought for at once as a guide to enucleation, which was consequently easy. The difficulties of clearing the pedicle, however, were insurmountable in this case, and after many attempts to clear it, it was ligatured *en masse*, the ligature including much of the kidney tissue. It was not, however, possible to draw the silk close enough to justify cutting away the organ, which was therefore left *in situ*. In clearing the lower ends of the organ, something was felt to give way at one spot, to which it was firmly adherent, and it was suspected that the colon had been torn. The operation was completed by a Listerian dressing, having lasted one hour and twenty minutes. The patient died twelve hours later of shock. After death it was seen that the pedicle could not have been cleared, even though the last rib had been resected, which was now done for experiment, with ease and without any damage to the pleura. Also that any endeavour to remove the organ with its investing structures would have ended in failure, owing to the very extensive attachments of the latter. The colon was found to have adhered to the kidney and to have been torn at this spot, where it was soft and sloughy. The first point brought out by these operations appears to be the necessity of removing the kidney and it alone in such cases, and of not attempting to take away the investing structures with it. Again, the desirability of early operation, before the parts around the organ, and especially the pedicle, have become converted into a mass of dense inflammatory tissue. Thirdly, the want of every kind of data bearing on this operation, and either encouraging or discouraging its performance.—Mr. CLEMENT LUCAS, agreeing with the author's view as to the publication of unsuccessful cases, had not yet published a case of his own, in which fourteen months ago he had performed the operation with good result. The patient had been bedridden for three months with a sinus in the loin; the operation was difficult owing to adhesions, and severe secondary hæmorrhage set in two weeks afterwards, only checked by plugging the wound with sponges soaked in perchloride of iron. He saw the patient a month ago; the wound was healed and he had gained much flesh. In that case pus did not disappear from the urine for many weeks after the removal of the kidney, showing that much pus must come from the bladder and ureter. He thought the lumbar operation preferable to the ventral, except in some cases of tumour, and he advocated a vertical incision from the last rib, and another passing horizontally outwards to the quadratus lumborum. Mr. Morrant Baker in a recent case made a transverse incision, enlarging the wound in a vertical direction. He agreed with Mr. Barker as to the impossibility of removing the capsule with the kidney. In his own case no sign of uræmia, and no vomiting followed.—Mr. MORRANT BAKER felt strongly the importance of removing the kidney without the capsule. In his recent case (a child eight years old), nephrotomy was first performed, and finding that the removal of the kidney would be easy he determined to do this if necessary. But when he came to perform nephrectomy, two or three months later, the capsule had become so thickened that he was obliged to detach it. This was done without much hæmorrhage, no difficulty was

met with as regards the pedicle, and the case did well. Apart from the risks of the operation itself, the removal of one kidney does not appear to have much influence. The child had fairly recovered from the effects of the operation in twenty-four hours, and no ill results ensued.—Mr. BARWELL had a case where death ensued shortly after operation. The patient was weakly, and passed much pus in the urine. He made a free incision into the abscess, evacuating much pus, and felt the kidney lying in the sac. The removal of the organ was easily effected, but it had to be detached from the crus of the diaphragm. A ligature was passed round the vessels and ureter, and the kidney then removed. The difficulty was to decide upon suitable cases, and to determine whether they could be dealt with by lumbar incision. He advocated free incision rather than aspiration in dealing with the perinephritic sac in the first instance, for the kidney could then be felt. The incision could be the same as for lumbar colotomy, and antiseptic precautions should be used. In a case of perinephritic abscess under the care of Dr. Silver, Mr. Barwell made a free incision in preference to aspiration, let out thirty-five ounces of pus, felt the kidney, which seemed healthy, inserted a drainage-tube, and the case recovered. The case of nephrectomy to which he had referred proved fatal on the fifth day, the patient dying comatose apparently from uræmia. The other kidney was found to be also the seat of tuberculous disease, so that had the operation been earlier performed the result might have been different. — Mr. BARKER, in reply, was glad that Mr. Baker had confirmed his view upon the desirability of removing the kidney from the capsule. Mr. Barwell's suggestion of an exploratory free incision was a good one. In a case of suspected tubercular disease he had preferred such exploration to excision, and evacuated much pus with considerable benefit. The patient survived two months, and after death both kidneys were found to be tubercular. In nephrectomy the time at which the ligatures come away from the pedicle, when this is tied *en masse*, is often much delayed, sometimes after the space of many months.

Mr. HOLMES exhibited a simple instrument invented by Dr. Howard for plugging the nares in epistaxis. It consists of a bag of india-rubber, which, after insertion in the nares, can be inflated with air to the required size, and, exerting equable pressure, speedily checks the hæmorrhage. It is made by Walters of Palace-road.

The Society then adjourned.

CLINICAL SOCIETY OF LONDON.

Syphilitic Psoriasis of Head and Neck.—Arterial Hæmatoma of Forearm.—Meningocele.—Progressive Painful Inflammation of Arteries.

THE ordinary meeting of this Society was held on the 8th inst., T. Smith, Esq., Vice-President, in the chair. The chief communications read had reference to some rare diseases of the vascular system.

Dr. BERNARD O'CONNOR read notes of a case of Syphilitic Psoriasis of Face and Neck. The patient, a female aged twenty-eight, came first under observation on March 2nd, 1881. She had been healthy up to six months ago, when she complained of pains in the head, most severe in the temples. A week subsequently there was sore-throat, and a fortnight later a general eruption appeared, that on the body and limbs being of the form of "dark bluish spots." Her husband had a few weeks earlier presented the same symptoms, with the exception of the peculiar rash on the face. He had also had a severe iritis, but never had a chancre. There were two healthy children, and the patient had never miscarried. The eruption on the face consisted of a number of pinkish-white scaly rings, and some darker circles all over the face, including the eyelids, and on the front, sides, and back of the neck. The rings were in all stages of development with spreading margins, and were not quite symmetrical; they were incomplete at points of contact. The eruption was dry, and there was itching. There was no trace of it on the elbows, knees, palms and soles, mucous membranes, ears, or scalp; but the hair had been shed in large quantity, and there was dry seborrhœa. A few brownish roseolous maculæ occurred on the body, back of thighs, and inner side of arms. There was no affection of the nails. The eruption on the face resembled somewhat lichen ruber and herpes cincinnatus; but under the microscope there was slight hyperæmia and infiltration of the rete mucosa. The absence of any implication of the palms and soles was unusual in syphilitic psoriasis, which the case was proved to be by its history and features as well as by the rapidity with which the eruption cleared away under mercurial treatment.

Mr. RUSHTON PARKER read notes of a Case of Arterial Hæmatoma of the Forearm due (apparently) to embolic arteritis and perforation. William G——, aged fourteen, had rheumatic fever in the first quarter of 1879, during which he experienced pain in the right forearm, followed by swelling of the whole limb, eventual subsidence in the arm but gradual increase in the forearm. He was admitted into the Liverpool Royal Infirmary on July 23rd, 1879, and was found to have an oval swelling of the right forearm, tense, slightly elastic, without pulsation (the previous existence of which the patient distinctly negatived). Incision under ether revealed a blood tumour between the bones and deepest muscles on the flexor side, and an open artery with upper and lower apertures. This vessel was tied and the wound treated by the carbolised method without the spray. Inflammation however became intensified, and septic conditions arose, without, however, any evil result until after the twentieth day, between which and the thirtieth several attacks of secondary hæmorrhage occurred. The wound was eventually searched for a bleeding point, but none found, the oozing being general. Ergotine subcutaneously, and turpentine locally, with elevation of the limb, were followed by cessation of bleeding and rapid cicatrisation. Hitherto no cardiac or respiratory symptoms had been present, though a systolic and diastolic murmur revealed aortic obstruction and regurgitation, both on admission and since. He now, after the sixth week, had severe dyspnœa with palpitation, and cardiac pain, commencing with an attack of epistaxis and producing cyanosis. Opium and digitalis were given, and in a fortnight he was better with occasional remissions. Under a regulated diet of bread, butter, potatoes, tea, and beef-tea, excluding especially milk and flesh, with opium and no digitalis, he gradually made a complete recovery from all impairment of the respiratory and circulatory functions. The murmurs, however, remained for months, but he was lately (Feb. 1881) totally free from murmur, and in robust health and strength. Partial division of the median nerve, in the final operation, has resulted in impairment of the palmar muscles concerned, but the main use of the hand is good, and all the most important movements preserved. Mr. Parker remarked that the appearance of septic influences is of course due to causes which were probably preventable; and the secondary hæmorrhage was almost certainly due to the intensified inflammation which ensued. This case is only one among many examples, which to many surgeons are well known, proving in the clearest way the influence of inflammatory irritation in promoting hæmorrhage from vessels in the vicinity. The converse, though not demonstrable here, is experienced in other cases, where the removal of irritation (such as the distensile force of retained discharge or blood-clot) is followed immediately by cessation of bleeding, which may previously have been profuse and apparently uncontrollable. As to the original blood-clot, the hæmorrhage of which it was the substance, resulted evidently from perforation of the artery concerned. The blocking of this artery, and the consequent fluxion, are circumstantially evidenced in the history, while the conditions requisite for embolism were, to say the least, rendered possible by the clinical signs. The age of the patient and all the circumstances leave, it is thought, no choice outside the supposition that an embolus consisting of active inflammatory material, on becoming impacted in the anterior interosseous artery of the forearm, led to acute arterial inflammation and consequent perforation in place of the obliteration more commonly to be expected.—Mr. T. SMITH thought the explanation given the only probable one, and remarked upon the infrequency with which embolism in a limb leads to hæmorrhage as compared with cerebral embolism.—Mr. GODLEE asked whether the chest symptoms were attributed to aneurism, or whether there was evidence of arterial disease in other regions.—Mr. HEATH said it would be most unusual to meet with arterial disease at the age of fourteen. He could not understand how two openings should occur in the vessel from embolism,

and asked whether any possibility of injury or strain had been excluded. The case might have got well more quickly had the wound been stuffed with lint, and no attempt made to close it.—Mr. MORRANT BAKER asked how long since the disease had the boy been seen, pointing out the occurrence of cases of blood cysts with a thin wall of sarcomatous tissue, afterwards developing into a tumour.—Dr. COUPLAND inquired if there was any evidence of embolism in other arteries—e.g., splenic or renal—and remarked upon the complete disappearance of the signs of valvular disease as a notable feature in the case.—Mr. RUSHTON PARKER, in reply, said that the age of fourteen excluded aneurism or arterial disease. He supposed the two openings might have been formed by the plug being in a branch coming off at right angles to the vessel. There was no possibility of any traumatic cause, and the idea of embolism was only entertained after the operation, which took place within one hour of admission. The puncture by the aspirating needle, and subsequent exploratory incision, were made because of the suspicion of malignant disease. The needle could hardly have reached the artery, which was deeply situated. The history was that of embolism, and the blood appeared to have gradually accumulated. The aortic murmurs were repeatedly observed by Dr. Glynn during the patient's stay in hospital, and an unfavourable prognosis was given. The opium and restricted diet were given because of the heart disease, and the total disappearance of the bruits was certainly remarkable. There was no evidence of the embolism elsewhere. In reply to a further question by Mr. Heath he added that the openings were about three-eighths of an inch apart, and the artery was not divided before ligature.

Dr. STEAVENSON read notes of a case of Meningocele. A female child, the last of a family of thirteen, was brought to the Children's Hospital when three weeks of age, with a cleft in the cranial and facial bones extending from the posterior fontanelle to the alveolar process of the jaw. Between the widely-separated eyes and nostrils was a tuberous swelling communicating freely with the cranial cavity. There was no cleft palate. Respiration was peculiar, a few short quick inspirations being succeeded by a pause, and the heart's action was accelerated. The mother stated that when she was three months pregnant she was much frightened by seeing the body of her son in a hospital mortuary, and to this fright she attributed the infant's deformity. The child lived to the age of four months and a half, and a post-mortem examination was refused. Out of thirty-nine cases recorded by Lawrence, twenty-one were males and eighteen females. In fifty-three out of seventy-nine cases the meningocele has been occipital; in six instances adult life was attained, the majority dying in early life.—Mr. T. SMITH had seen the child during life, and had never seen so extreme a case. It was remarkable that it should have lived so long. He added that the history of maternal impression was very clear, the mother stating that she had been much shocked, when viewing the body of her son, by placing her hand on the head and feeling the vacuity in the forehead left by the post-mortem.

Mr. JOHN H. MORGAN read notes of a case of Progressive Painful Inflammation of Arteries. G. W——, aged forty-six, contracted syphilis at eighteen, has since married, and has several healthy children. He is the subject of a curious congenital enlargement of superficial veins of chest and abdomen. Nine years ago he was a patient at Guy's Hospital under Dr. Wilks, who has described his case. In 1876 he suffered pain in the left armpit, which passed down to bend of elbow, and then left him. In 1877 he came under Mr. Morgan's care, suffering from pain in the left arm, for which there seemed no evident cause. There was no swelling, and he soon recovered from this attack. In 1880 an attack of sudden and severe pain in right groin, deep seated, and made intense when the part was pressed. The area of pain was confined to two to three inches in the course of the femoral artery, and to one to two inches on either side of it. This pain gradually travelled down in the course of the artery to the popliteal space, being traceable throughout, and being more severe at the part corresponding with the opening in the adductor magnus. In course of time the pain passed into the leg, and here some limited œdema was seen at the seat of pain, but not beyond. Similar pain came suddenly in the right axilla, and passed gradually down in the course of the brachial artery into the forearm, and here again a limited œdema occurred. He was treated with iodide of potassium, alkalies, and biniodide of mercury at various times, and in varying quantities, but without material effect upon the disease. Subsequently the right carotid artery was affected in a similar way. The symptoms pointed evidently to disease of an artery, probably inflammation of the fibrous coat; since the pain passed from the centre to the periphery, was in the course of the various arteries and was made intense directly the finger perceived the pulsation of the artery beneath it. Mr. Morgan had not been able to find any record of observation of symptoms. The patient is now in good health and has had no recurrence of the symptoms. He was shown to the Society.—Mr. HEATH said it was interesting that the arteries should have been inflamed and yet not blocked. He suggested that the patient had a tendency (possibly congenital) to disease of the bloodvessels; and asked whether there was any history of gout, in which disease there is a form of inflammation around arteries.—Mr. MCHARDY said that Dr. Buzzard and himself had examined the patient's retina, and had found the arteries to be only about one-third the size of the veins. The veins were not tortuous or distended, so that the arterial circulation seemed deficient. The arterial coats were not appreciably thickened.—Dr. TAYLOR asked whether any sphygmographic tracings had been taken. It would be interesting to know what influence an inflamed artery had on the pulse-trace.—Mr. HAWARD said the history of syphilis afforded the most natural explanation of the arterial condition; and the intermittency of the affection was rather in favour than against the theory of syphilis. He asked Mr. Heath whether arteritis was common, and if so whether clotting was a usual symptom of it. He had never met with it clinically.—Mr. HEATH agreed that arteritis was not a common thing clinically, but it had been laid down that in arteritis obstruction takes place.—Mr. HAWARD had never seen, in a large number of post-mortem examinations, any instance of clotting in an artery, but had met with arteries which showed old evidences of inflammation in thickening and opacity of the walls, and diminution of lumen. But of course he had seen inflammation in an artery set up by an embolus.—Mr. T. SMITH asked at what period of the case was the diagnosis made. He had never seen a case of primary arteritis during life. Mr. Savory had recorded a case of extreme diminution in the calibre of the carotid and other large arteries without clotting.—Mr. RUSHTON PARKER had very little doubt that in some instances arteritis led to plugging from blood-clot. Mr. Lister had recorded a case in the *Edinburgh Medical Journal* of gangrene of the leg in a child following measles. But acute arteritis seldom occurs except from traumatism. Ligature produces arteritis whether the coats be divided or not, and plugging results. He had seen cases where a rope pressing on the brachial artery had caused plugging, and another of severe injury with rupture of the brachial plexus and plugging of the subclavian.—Mr. MORGAN, in reply, said there was no history of gout. At no time was there any indication of plugging or impeded blood-flow in the affected arteries. Unfortunately no sphygmographic tracings were taken. The symptoms, and especially the extreme tenderness over the arteries themselves, were not those of neuritis. The diagnosis was made when one artery after another became affected.

Mr. T. SMITH showed a case of Nævoid Enlargement of one limb and the same side of the body. He had seen two other cases—one which he recorded in St. Bartholomew's Hospital Reports, of nævoid elephantiasis of one leg, with large venous sinuses about the nates, the main vein passing through the sciatic notch. The leg was bandaged and its size much reduced, but it became very painful, and the child died. The cellular tissue and skin of the limb were found to be much hypertrophied, and an abnormal system of veins passed up the back of the limb, emptying in the pelvis. The iliac veins were very large. The other case, a young lady of fourteen or fifteen, was less marked, and was treated by a tightly fitting elastic stocking. She is now twenty-six years of age. The present case, a boy, presents a similar condition of the right lower limb, and some nævoid stains about the chest. The leg was bandaged for a week, but it caused pain and tenderness and general failure of the health, so that the bandage (which proved so disastrous in the first case) had been left off, and it was intended to substitute an elastic stocking. Mr. Smith attributed the ill effects of the bandage to the disturbance produced on the general circulation by its pressure.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

Recovery from Optic Neuritis.—Congenital Anomaly in Yellow-spot Region.—Blood-clot behind Iris.—Colour-blindness.

A SPECIAL meeting was held on the 7th inst., W. Bowman, Esq., F.R.S., President, in the chair, the main business being the presentation of a report of a committee upon colour-blindness, which was read by Dr. Brailey. At the close of the meeting a demonstration on the subject was given.

Dr. HUGHLINGS JACKSON showed a case ten years after recovery from Optic Neuritis. The patient came under care ten years ago for cerebral disease, seizures beginning in the right cheek, followed by right hemiplegia and temporary aphasia, and neuritis. The disease was due to syphilis, and under iodide of potassium recovery took place. The patient now complains of some numbness in two fingers of the left hand. His optic discs appear normal; one could not say from examining them that there had been neuritis. Vision too is normal.

Mr. WAREN TAY showed an infant, aged twelve months, who was brought to the London Hospital for weakness of its back and limbs. Suspecting some cerebral affection (congenital) the optic discs were examined with the ophthalmoscope. They were found to be healthy, but on the yellow-spot region of each eye was a conspicuous white patch of considerable size, with a brownish-red fairly circular spot in the centre. The conditions somewhat resembled those met with in the yellow-spot region in cases of embolism of the central artery. The changes are probably situated in the retina, and are possibly congenital. There were no signs of syphilis whatever; a sketch of the fundus of each eye was exhibited.—Mr. BRUDENELL CARTER suggested that the appearance was due to some opacity of the connective tissue around the fovea centralis, leaving a space through which the choroid was visible.—Mr. TAY said the yellow spot itself certainly seemed to be healthy. The condition had not altered during the six weeks it had been under observation.

The PRESIDENT showed for Mr. Power a case of Hæmorrhagic Clot behind the Iris, the clot having remained unaltered for some months. The humours were clear, but there was a dull reflex from the fundus suggestive of deeper effusion. Mr. Bowman remarked that blood-clots in the eye often remained unchanged for many months—e.g., in diabetes. In this case the iris looks normal. The eye is very nearly blind.

The Report on Colour-blindness was then presented for a Committee of the Society by its Secretary, Dr. W. A. BRAILEY. By the aid of sixteen colleagues 18,088 persons have been examined, of whom 1657 were females. The average percentage of colour defects among these latter was ·4, that of the males being 4·76, the pronounced cases only among males being 3·5 per cent. Certain classes of persons show an exceptionally high percentage of colour defects. The most striking in this respect are deaf-mutes, among whom every fifth child is defective. The average is also higher than normal among members of the Society of Friends, especially among those belonging to the poorer classes. It is distinctly high among Jews, and the forms of colour-blindness occurring among these are very pronounced. There is also observed a diminution in the percentage of colour-blindness as we ascend in the social and educational scale. For example, at Eton (769 boys) the percentage of pronounced cases, which are the most reliable for purposes of comparison, is 2·46. Among medical students and sons of medical men (435 persons) it is 2·5. In middle-class London schools (2671 boys) it is 3·48. In the Metropolitan police (4932 men) it is 3·52. Among poorer schools in London (1729 boys), 3·87. There appears to be no excess of colour defects among lunatics, or in town, as distinguished from rural populations. They are perhaps greater in Ireland than in England. All the pronounced cases reported (red and green blinds), not only make mistakes in the matching of coloured wools, but are unable to distinguish the colours of red and green lights; though sometimes, when they are contrasted side by side or in rapid succession, they are enabled to guess them by the fact that with equal illumination one appears to them always brighter than the other; but if their brightness and distance be unknown they are utterly unable to distinguish between them. Certain remarks were added by Dr. Brailey as to (1) the causation of colour defects, and (2) as to the mode in which the red- and green-blind see these colours. He attributes colour defects in some cases to a congenital physical defect, either in eye or brain, occurring as an accidental variation from the normal structure. When once existing it is capable of being transmitted to descendants. In other cases he thinks that they may arise, more especially the slight forms, from defective education in colours in infancy. This might account for the superiority of the female sex in respect to colours. Though brought up in very early life under the same circumstances as males their different tastes lead them to a greater study of colours, which will be facilitated by their more rapid mental development, especially in the observing faculties. It would also account for the high percentage exhibited by the deaf and dumb, and to some extent for that of members of the Society of Friends. It would also be compatible with a greater prevalence of colour defects among the poor. The third factor, which is by no means an unimportant one, is intermarriage. He is strongly of opinion that among Jews, and to a less degree among Friends, intermarriage during generations has strengthened the defects existing among them not only in number but in degree. In connexion with this it is important to notice that red-blindness, which he considers a more aggravated form than green-blindness, is especially prevalent among Jews, and, to some extent, among Friends also. He suspects an unduly high average of colour defects among the children of those working in colours, such as artists, dyers, &c., though he has as yet not collected sufficient evidence to establish the position on a statistical basis. With regard to the question as to what those blind to red and green see in place of these colours, he thinks that they appear to them as shades of grey, either pure or mixed, with a little of yellow. The completely green-blind probably sees pure *green* as a pure grey of the same shade. *Red* he sees as a dull yellow-brown, of a shade similar or slightly darker than the red is to a normal eye. Therefore he will more commonly match green with grey and red with yellow-browns, or with a green that is slightly yellowish. The completely red-blind sees *green* as a grey tinged with a little yellow, but of similar shade. He sees *red* as a very dull yellow-brown of much darker shade than the red is to a normal person. Therefore he will match red with a much darker yellow-brown, or with a much darker slightly yellowish-green. He will match green with grey less often than the green-blind. He thinks that in red and green blindness there is also a slightly defective appreciation of all colours, so that all pale shades are liable to be confused, especially at a distance, or by artificial or deficient light.—Mr. FROST mentioned a fact bearing on the hereditary transmission of colour-blindness. The father, a draper, was so colour-blind as to be obliged to mark the colour of all his goods. Of his seven sons, six were known to be colour-blind; but none of his three daughters were; one of them, however, has a son who is completely red-blind; and being a jeweller is unable to distinguish between rubies and emeralds.—The PRESIDENT was not previously aware of the prevalence of colour-blindness in the Society of Friends. Dalton was a Friend and he mentions a brother of his who was also colour-blind. It was also interesting that among this society both sexes seemed equally prone to the defect. The influence of education had been also seen in reports in other countries. As the object of this inquiry was to induce the Board of Trade to institute examinations of officials concerned in signalling, &c., the value of a report based on 18,000 cases was great. It was interesting to find its results agree with those obtained elsewhere, and especially with the more recent investigations; for in Norway and Denmark recent observations (made under improved experience) had not tallied with earlier ones. There appeared to be but few cases in which only one eye was colour-blind. We are still only at the opening of the inquiry upon the nature of colour-blindness.—Mr. BRUDENELL CARTER thought that all cases of monocular colour-blindness would escape notice under the present plan of examination. When one considers that anisometropia is not uncommon it seems likely that many cases, especially those which are hereditary, may be met with. He expressed the great debt which the Society and the public owed Dr. Brailey and his coadjutors for this arduous

investigation; of its importance there could be no question when one considered that one railway company (the London and North Western) alone employs about one thousand engine drivers, of whom forty-five must be colour-blind. This would illustrate the great perils incurred, and suggested that many accidents may be due to this hitherto unknown and unappreciated cause. It was most important, then, to get legislative recognition of the subject.—Mr. M'HARDY had found that engravers were often colour-blind, and some had not taken to engraving for this very reason. He asked what was the highest percentage of colour blindness amongst any particular class of the Friends' children. On the Connecticut Railway at least one per cent. of the *employés* was found to be colour-blind; many such get discharged from work on account of mistakes attributed to carelessness, &c. He referred to the case of a collision in Norfolk Harbour, U.S., where there was cross-swearing as to the colour of the lights; when the pilot was found, three years subsequently, to be colour-blind, and incapable of distinguishing between red and green lights at an ordinary distance. He was accordingly discharged from his office, as were many other pilots, who were found to be similarly affected. In reply to Mr. Carter, he said that wood-engraving often runs in families, but sometimes one of the family is a water-colour artist.—The PRESIDENT remarked that a person with artistic aptitude, but colour-blind, would naturally devote himself to etching or engraving.—Dr. BRAILEY replied, the substance of his remarks being given above.

The Society then adjourned.

Reviews and Notices of Books.

How to Use the Forceps. By H. G. LANDIS, M.D. New York: J. B. Treat.

THIS little work is divided into two parts. The first treats of the anatomy of the pelvis and the mechanism of labour, the second of the forceps and its application. The pelvis is described as consisting of two canals partially separated at the inlet, but identical at the outlet. "These canals converge from above downwards, and are mutually curved from before backwards. Their direction is therefore somewhat spiral. The calibre of each canal is that of the fœtal head, therefore the head may descend in either canal, and will follow a spiral course in so doing." In accordance with this view of the pelvis the mechanism of labour is briefly explained as well as the principles which should guide us in the application and use of the forceps. The author recommends the use of the long forceps, but in their introduction and application regard is had to the head and not to the pelvis, for the blades should grasp the head in the biparietal diameter. The author is opposed to the employment of the so-called leverage movement to effect delivery, and employs traction only, and this he applies after a method of his own. He disapproves of the manner usually recommended in text-books of making traction. He maintains that pulling on the handles of the forceps drags the head not in the axis of the pelvis, but against the symphysis pubis. In order to avoid this, he recommends that the handles should be held by one hand, so as to grasp the head firmly, and that the other hand should be "placed so that the ball of the thumb comes over the lock, while the index-finger rests upon the upper arm of one blade, and the middle finger upon the other. Now, while the right hand holds the handles almost at rest, the fingers of the left push the blades so as to move them and the contained head downwards, backwards, and a little to the left of the median line. Secondly, while the fingers are pushing downwards in this way, we may also make use of them as a fulcrum, and by elevating the handles cause the blades to move in an opposite manner, but care must be taken that the force thus applied by the right hand is not enough to overbalance the downward pressure of the left, else we will merely extend the head without propelling it." The above will give some idea of the method of using the forceps recommended by the author. The work contains much that is original, and will repay a careful perusal.

The Natural History of Cranes. A Monograph. By the late EDWARD BLYTH, C.M.Z.S. Enlarged, with numerous Illustrations by W. B. TEGETMEIER, F.Z.S. Pp. 91. London: Horace Cox. 1881.

THIS prettily-illustrated work contains a zoological account of all the known species of cranes. It is founded on a monograph by the late Mr. E. Blyth on the Gruidæ, but great additions have been made to it by Mr. Tegetmeier, which add much to its interest. The cranes, as a whole, are a very well-defined group, and some of them exhibit intelligence of a kind that is rare amongst birds. Their name (crane—grus—γέρανος—sárrás—kárrunck, and the like, in different languages) is almost always onomatopœic, and indicative of the loud trumpeting sound they can emit. They are somewhat formidable animals when wounded, being able to transfix the walls of the abdomen with one stroke of their powerful and pointed bill, or to rip it open with their recurved claws. It is stated that when the bird is wounded, the best way to avoid its attacks is to present the muzzle of the gun as it approaches. It will fix its bill in the orifice, and may then be destroyed without danger. Several of the species migrate, the flock assuming a V-shaped form and flying at a great height. The members of the group are very widely distributed, being found everywhere except in South America, the Malayan and Papuan Archipelago, and the scattered islands of the Pacific. At one time they were common in the fenny counties of England. They appear to be entirely vegetable feeders. Mr. Tegetmeier observes that old Æsop's fable of the stork being captured in the evil companionship of the cranes, and being condemned to death for thus associating with notorious grain-plunderers, indicates that he knew well enough the two kinds of birds, far better, indeed, than the renowned prince of mediæval painters, who commits the zoological mistake of introducing cranes instead of storks into his world-famous cartoon of the miraculous draught of fishes. The cranes pair for life, and some, as the American white crane, propagate whilst still in the plumage of immaturity. The nest is built in swamps or lagoons, and most interesting accounts are introduced from the notes of the late Colonel Tickell of the love-making of the Grus antigone, and of Mr. Wolley upon their nesting, which he took infinite pains and trouble to inspect. The Gruidæ are divided into two groups, Balearica and Grus, the former being the crowned cranes of Africa; the latter include the Stanley or paradise crane; the damoiselle crane, a beautiful specimen of which is now, or was very recently, in the Zoological Gardens; the wattled crane; the white-naped crane, common in Japan, and represented on many of their ornaments; the Asiatic white crane, and others. Mr. Tegetmeier places in an appendix some observations he has made upon the convolutions of the trachea in birds. This tube is remarkably developed in the Gruidæ, forming convolutions which are partly lodged in a groove of the keel, or sternum, and partly occupy the space between the diverging limbs of the furculum. He is of opinion, and he supplies many facts in support of his opinion, that the elongation of the windpipe, and the resulting twisting and convolution if it is much elongated, are connected with the deepness of the note and resonant character of the voice. Several woodcuts illustrate the dissections he has made. The work will be read with interest by every zoologist and sportsman.

MR. ARTHUR FLINT, L.R.C.P., of Westgate-on-Sea, has been elected to the Board of Guardians and Sanitary Committee of the Isle of Thanet Union.

THE LANCET.

LONDON: SATURDAY, APRIL 23, 1881.

LAST week, in considering the question "Why may we not meet professed homœopaths in consultation?" we were driven to the conclusion that we cannot consult with consistent homœopaths (if for no other reason) because their notions of pathology and therapeutics are fundamentally different from and antagonistic to ours; and that we cannot consult with professed or nominal homœopaths, though they may occasionally practise according to the principles of scientific medicine, because they retain a name that, in their case, possesses no logical meaning, and is used for sectarian purposes. From this conclusion we feel convinced neither good sense nor good faith will attempt to find any way of escape. If homœopathy be not *exclusive*, as HAHNEMANN asserted it should be, it has no claim to be regarded as a special method. Homœopathy is essentially either a complete and formal system of therapeutics, or it is a mere assumption, and at the utmost a provisional hypothesis capable of limited and exceptional application. Neither the oft-quoted but equivocal assertion of HIPPOCRATES, διὰ τὰ ὅμοια νοῦσον γίνεται, κ.τ.λ., "by similar things disease is produced, and by similar things administered the sick are healed of their diseases"; nor the less known dictum of PARACELSUS: "Inde sequitur simile per simile curari," affords any real support to HAHNEMANN'S notions of the nature of disease and of the selection of appropriate remedies. Even if the statements we have quoted were more precise and explicit than they are, their value would be purely historical, and in no sense or degree scientific. The allegation of PARACELSUS is only a part of his strange and erroneous doctrine of the Chemical Triad; and there are good reasons for believing that the treatise from which the support of HIPPOCRATES is drawn may not be genuine. However interesting, therefore, the testimony of these authors may be historically, it is worthless so far as it has been adduced to give warrant and authority to HAHNEMANN'S *Laws*. Of still less scientific value, in this connexion, are the conjectures of ANAXIMANDER regarding the nature of primitive matter, or ANAXAGORAS' doctrine of ὁμοιομερῆ, or DEMOCRITUS' theory of atoms. The truth or fallacy of homœopathy as a method of pathology and therapeutics cannot be established by appeals to the speculations of ancient philosophers or physicians. The claims of homœopathy—that is, of Hahnemannism—have been tried at the bar of scientific criticism, and have, in every instance and degree, been disallowed. The so-called law of similars and the law of dynamisations have been refuted by a general consensus of scientific opinion, and homœopathy has been deliberately held to have no point of contact with scientific medicine; consequently the practitioners of scientific medicine have, as a body, refrained from professional intercourse with those who practise or pretend to practise homœopathy. Physicians have, for the most part, been especially scrupulous in the observance of this rule of professional etiquette. As much cannot, however, be said for surgeons. Of late years there has been a growing laxity on the part of some surgeons in this matter. The explanation usually adduced is that whatever objections may be urged against homœopathy as a system of therapeutics, so far as it relates to diseases falling within the physician's domain, these objections cannot apply to surgical affections that require operative aid. This explanation is plausible at first sight, and might suffice if surgeons of the present day stood at the same low level as their predecessors six hundred years ago; but it is specious and not altogether honest now. In the thirteenth century surgical operations were generally performed by persons so ignorant of anatomy and medicine, that GUY of CHAULIAC stigmatised them as mere *mechanics*. Before WILLIAM SALICETTI, by his two works, "Chirurgia Magna" and "Chirurgia Parva," lifted surgery out of the low depths into which it had been sunk by the priests and monks, all who performed surgical operations, whether men or women, were compelled to undertake to limit their labour to *handiwork*, and not to give advice or administer any internal remedy without the permission of a physician. We have now changed all that. As no surgeon is now content to be looked upon as an artisan, it is difficult to understand how anyone claiming rank as a skilled and educated surgeon can agree to consult with a homœopath. To do so almost implies that he is willing to enter upon a similar undertaking to that demanded six centuries ago. The practice of surgery is no longer confined to the performance of the operation, but includes all the difficult and complicated details of the after-treatment. In the management of this much strictly medical knowledge and skill are often required. Indeed, the success of modern surgical practice as compared with that of former times lies, mainly, in the care and attention given to many matters previously deemed to be outside the sphere of practical surgery. Unless a surgeon, therefore, is prepared in the presence of such complications of operations as pyrexia, pneumonia, bronchitis, and pyæmia to stand aside and see his patient treated according to views of his homœopathic colleague, and perhaps sacrificed thereto, he must, quite as much as the physician, refuse to act in conjunction with a professor of homœopathy. The late Sir BENJAMIN BRODIE in a letter published in *Fraser's Magazine* in September, 1861, said, "To join with homœopathists in attendance on cases of either medical or surgical disease would be neither wise nor honest. The object of a medical consultation is the good of the patient; and we cannot suppose that any such result can arise from the interchange of opinions where the views entertained, or professed to be entertained, by one of the parties as to the nature and treatment of disease are wholly unintelligible to the other." In this just opinion all thoughtful persons must acquiesce.

THE Metropolitan Medical Association is in a state of considerable activity. And when an association composed of very energetic men is in a state of activity, something of importance may be expected to result. We have only to mention the principal names representing this Association—The Right Hon. JAMES STANSFELD (Chairman), Sir CHARLES TREVELYAN, Sir RUTHERFORD ALCOCK, Sir SYDNEY WATERLOW, Sir FOWELL BUXTON, and Mr.

SAMUEL MORLEY—to assure our readers that there are life and purpose in this movement. A few weeks ago we noticed a meeting at Croydon in furtherance of the objects of the Association. Now, another is announced, the treasurer, Mr. HAMILTON HOARE, being in the chair. Mr. HOARE said the object of the Association was to benefit the working classes—(1) by lessening the expenses of sickness; (2) by obviating the necessity for doctor's bills; (3) by providing them with the best kind of medical advice and medicine which it was possible to get; and (4) by saving them entirely from the miseries and evils which had to be experienced when, for want of a better system, medical aid and medicine had to be sought for at the out-patient department of a London general hospital.

It is certainly most desirable that the working classes should be encouraged to take much more thought than they do about provision against the day of sickness and accident. Much of the disease that accrues to families is not accidental. It may be reckoned on; it should be anticipated. The sicknesses of children—measles, whooping-cough, scarlet fever, and, in negligent families, small-pox; diarrhœa, and the diseases of the period of teething and of growth; colds and the diseases of winter—to say nothing of constitutional ailments and weaknesses,—constitute half the care, and lead to half the work, of an intelligent medical man. A rich man can command the best advice in any emergency. He can go to a warm climate, or take a sea voyage. He has a number of resources for curtailing and curing disease; but when disease overtakes a working man, or his wife or child, he has to rely on a neighbouring doctor and on his good medicines. The object of the Metropolitan Medical Association is to intensify in the working man the sense of responsibility for meeting the incidence of sickness and to help him to make good arrangements beforehand. We do not wish to say anything in discouragement of such a movement. The almost universal distribution of medical clubs and provident dispensaries makes it now most easy for any thoughtful working man to secure good medical attendance for himself and family in any emergency. Far better arrangements still could be made if working men would take the matter into their own hands and come to personal terms with a medical man in their own immediate neighbourhood. Nobody knows better than such working men that good doctors and good drugs should be paid for; that the "workman is worthy of his hire"; that medical wisdom and dear medicines are not to be got in the first "shop" for sixpence. Many of the so-called provident dispensaries even are very far from perfect in their provision for retaining the best doctors. Some of them go on the principle of selecting a stranger, generally a young man, at a low salary, and exacting from him an unconscionable amount of work. A correspondent, whose letter we insert to-day, disappoints us by his account of the medical arrangements of the Provident Dispensary system in Manchester. A single doctor is appointed; his name and private address are advertised, and patients of other doctors are canvassed and pressed to join the dispensary. What is the good of such work as this? What is the benefit of asking a respectable working man, paying his bill creditably to an adviser of his own choosing, to leave his trusted doctor to pay a small and inadequate subscription to a dispensary system he does not need? Further, we have before had to complain of the tendency in these large movements to offend and injure medical men by admitting well-to-do people to the benefit of arrangements which are only allowable in the case of persons of very limited means. We should like some assurance that these grave faults are to be avoided in the metropolitan scheme, which seems to us a little too paternal and patronising towards the working man. If men like Sir SYDNEY WATERLOW and Sir RUTHERFORD ALCOCK, both prominently and honourably associated with the London hospital system and with this Provident movement, would use their influence fully, it should be quite possible to have an Out-patient Department to which a respectable working man could repair on suitable occasions with as little loss of self-respect as to the In-patient Department. We cannot see why it should necessarily be associated with "great miseries and evils" other than those incident to the very existence of sickness and poverty.

THE discussion on desquamation after scarlet fever, which has lately occupied a portion of our columns, will repay attention. As part of the larger question of the diagnosis of scarlet fever, it is of great interest. There is hardly any disease in regard to which diagnosis is at once so difficult and important as scarlet fever. All authors agree in saying that almost every prominent symptom of it may be wanting. All the symptoms of the earlier stages may either be absent or may be overlooked—sickness, sore-throat, and rash. And even the temperature, judged by one or two observations, may be below 100°. All authorities describe, and all practitioners are familiar with, cases in which no suspicion of the disease exists until the occurrence of desquamation, in circumstances which leave no doubt that it is only a part of scarlet fever. But surely desquamation itself is also a most variable process, and, as our correspondent "Vigilans" observes, is so variable as to excuse a good deal of the variety of opinion on it, which undoubtedly exists. It may be almost entirely absent, it may occur out of proportion to the amount of rash, it may be long delayed, or it may extend over a very variable period. The recent correspondence was based on the case of a boy at a large public school near London, whose scarlet fever was detected only by close observation, the amount of rash being small, and the whole attack unusually light. The medical officer of the school gave his sanction for the boy returning home three weeks after the attack, who never had any sign of desquamation. The father having other children at home during the Christmas holidays who had not had scarlatina, naturally felt afraid, and wisely (we presume with due precautions for the boy and others) removed him to an infirmary specially intended for such cases. Between two and three weeks later, and six weeks from the commencement of the attack, when the boy should have returned to school, he was found by a practitioner to be peeling. The medical man of the school considered the peeling to be unconnected with the attack which he had at school, and to be due to eczema. The father of the boy associated it with the attack that had been so well diagnosed at school, and saw in it a justification of his caution in not allowing his son to return home. The majority of authorities will be disposed to agree with Dr.

DAVID PAGE, that patients recovering from scarlet fever may have their desquamation much deferred, and that certainly they are not desirable as members of society for at least eight weeks. This is very hard, especially in cases where the disease is slight, where there is no sense of illness and but slight or no appearance of desquamation, but it is sound doctrine. The precautions may be excessive, but the case is one for great caution. Still it must be admitted that even among authorities there has been a variety—not to say looseness—of teaching which goes far to explain, especially in connexion with the acknowledged variations in the process, the view taken by the medical officer of the school. Let us notice only a few that are at hand. TROUSSEAU says, "Desquamation in scarlatina is not very well understood by the majority of physicians." He instances a case in which, though at the seventy-second day, it was still going on. TROUSSEAU would have been apt to regard even HEBRA as unsound, for HEBRA speaks of desquamation as ending at the "end of the third week." Dr. J. LEWIS SMITH, a very good observer, of New York, speaks of desquamation as succeeding the disappearance of the eruption and occupying "several days." Mr. MALCOLM MORRIS says it begins in the latter part of the second week, but may commence as the rash fades, or not until the end of the sixth week. Dr. BRISTOWE says the period of desquamation is of various duration. "It is sometimes completed in one or two days, not unfrequently extends over a week or two, and occasionally is prolonged for several weeks." Whether difference of opinion is sound excuse for difference in practice, the variety in the process itself and the occasional instances in which it is deferred indicate the safety of a rule of exclusion of at least six weeks, and if possible of eight. Parents and patients will often rebel against this hard doctrine, but, considering the gravity of the disease, it is a safe one for medical men to hold. Our correspondent of to-day, "Vigilans," reminds us that all desquamation is not scarlatinous. He describes one case in which it seemed to result from the administration of turpentine for hæmaturia. This suggestion is one to be remembered, when sanitary law and professional duty in connexion with desquamation are often both delicate and difficult.

THE office of Coroner for the Central Division of Middlesex being again vacant, it becomes necessary to call upon our professional brethren to use all their influence in support of a medical coroner. The late Mr. WAKLEY, counted it among the triumphs of his energy to have secured this office for the profession, and to have been the first medical coroner. Dr. LANKESTER was a worthy successor, and Dr. HARDWICKE has justified the trust reposed in him. On this occasion, perhaps the last when the appeal will lie to the freeholders of the district, there is, we believe, to be a very determined attempt to recover the post as a prize for the legal profession, which has already more than its share of positions commanding both emolument and prestige. This consideration alone should induce members of the medical profession to enter into the contest with unwonted alacrity and earnestness. There are, however, better and higher reasons for urging instant action in the matter. Abundant indications have recently been apparent tending to show that the rights and interests of the profession, as medical witnesses and practical inquirers for "the cause of death," are about to be invaded. Elsewhere we draw attention to a question relating to fees for post-mortem examination in cases where the medical evidence given privately to the coroner obviates the necessity for an inquest. Under the plea that the medical man is not required to go into court, and that his report is communicated in writing, the fee for his opinion is to be reduced by fifty per cent., and rewarded by half-a-guinea instead of a guinea! This paltry economy is not unnaturally regarded as an insult by the medical practitioners of Kent. If the recognition won for the profession in Middlesex by the late Mr. WAKLEY, to whose endeavours the remuneration of medical witnesses was due, is now sacrificed, the effect on the question of fees in general cannot fail to be most disastrous. Medical and scientific knowledge is an undoubted advantage, if not a positive necessity, to a coroner. It saves the ratepayers' money, and prevents many miscarriages of justice. We will not say more on the subject of the election at the present moment, but no time should be lost by the medical practitioners of Central Middlesex in exerting their influence to secure the return of a member of their own cloth.

Annotations.

"Ne quid nimis."

THE LATE EARL OF BEACONSFIELD.

THE protracted illness of Lord Beaconsfield has terminated fatally. The age of the noble lord rendered this issue probable from the outset; and although desiring to welcome and cherish any hope which could be suggested, we have not been able to disguise the circumstance that throughout the conditions have been unfavourable to recovery. Those who closely watched the health of the deceased gentleman, during the last fifteen years particularly, cannot fail to have noticed the struggle which has been maintained by the mind against, and, to some extent, at the expense of, the body.

While Mr. Disraeli sat in the House of Commons his life was an almost continuous effort. His imperturbable bearing, his habit of emotional self-restraint, his almost uniformly placid style of delivery—artistically, and always as the result of purpose, never involuntarily, varied by lighter and brighter passages of elocution,—were the fruits of effort. The statuesque posture, the motionless face, the abstracted or seemingly indifferent manner, which the superficial observer mistook for indications of a constitutional lack of sensibility, were, in truth, tokens of the intensity of the emotional nature they disguised. Lord Beaconsfield was a man of profoundly deep feeling and a highly sensitive temperament, but, with an indomitable will habituated to self-control, the customary expressions of such feeling as he possessed were interdicted. For example, in place of movements of the ordinary excito-motor type, the noble lord's physical habit was, in the later-middle period and towards the end of his career in the Commons, characterised by slight and seemingly automatic, but really conscious, acts of the slightest kind often repeated. It was very curious and exceedingly interesting to study these movements from the psychological standpoint. Under ordinary circumstances Mr. Disraeli would sit for long stretches of time during the violent or terribly irritating attack of a political opponent, with nearly closed eyes, as though asleep.

When the onslaught waxed furious he would, as though with all-engrossing intent, fix his gaze at the toes of his boots, moving them slowly so as to bring all points under observation. If the taunts or reproaches hurled at him were of so grievous a nature as to make any other man furious, he would straighten himself and brush some particle of dust from the front of his buttoned frock-coat, or from the sleeve of his left arm. Then he would examine his nails, and as a climax, when few statesmen so assailed could avoid some token of emotional restlessness, he would, perhaps, take out his single eyeglass, and, fixing it firmly, look for an instant at the clock in the front of the gallery opposite Mr. Speaker, dropping the glass with one quick elevation of the eyebrow. This last-mentioned trick being the only part of a series of actions which, though familiar to his observer, was never a mere matter of habit. Probably, and it is worth noting in reference to the recent incident of his approaching the Ministerial bench in the House of Lords after the division at the close of the Candahar debate, the noble lord was less a man of *habit* in the true sense of that term—i.e., as implying the relegation of large classes of actions to the subconsciousness to be performed automatically—than the average brain-worker. The fact is interesting as throwing light on the type of his physico-mental constitution, and as illustrating the character of the strain which the life and enterprise of the deceased statesman imposed on his mind-power.

The long illness of the Viscountess Beaconsfield caused Mr. Disraeli an intensity of mental suffering which perhaps few, if any, of his most intimate friends adequately appreciated. He was not a man who wore his heart—and it was truly a great heart—on his sleeve, or found relief in the semblance of sorrow. The embarrassing political circumstances under which Mr. Disraeli first succeeded to the Premiership of the late Earl of Derby almost exhausted his powers. During the debates which preceded the Disestablishment of the Irish Church, he went through an amount of mental toil severely trying a constitutionally weak muscular system, a fact which was not sufficiently recognised. Probably few statesmen have suffered more, or surmounted greater physical obstacles, than Mr. Disraeli suffered and surmounted on the day preceding and during the night of the delivery of his great speech on Mr. Gladstone's famous Resolutions immediately before the Derby-Disraeli administration resigned. Then came a period of less strain, in which those who closely and anxiously watched the right hon. gentleman were rejoiced to observe a marked and progressive improvement in his general state with indications of a new storing of mental and nervous strength. Probably Mr. Disraeli was to all practical intents as well as he had been, for a decade at least, when he took office as Prime Minister in 1873. The cares and toil of a purely Ministerial life he might long have endured without any serious loss of strength, but the physical exhaustion consequent on long sittings in the Commons told heavily against him, and it would have been better had he been able to bring himself to accept the relief likely to be afforded by removal to the House of Peers the second time Her Majesty graciously pressed the proposal upon him. On the first occasion, as is well known, Mr. Disraeli, ever the most devoted and delicately affectionate of husbands, obtained leave to place the coronet on his wife's brow which had been intended for his own. It was, practically, too late when Mr. Disraeli became Earl of Beaconsfield to prolong a valued life by the means adopted. Speaking now freely, we believe the deceased statesman would have lived longer if he had *not* thus late retired to a scene of comparative quiet, upon which he ought, in the interests of his health, to have entered when the Queen urged him to do so some years before! As it was, Lord Beaconsfield was deprived of his accustomed mental stimulus at the precise moment when he most needed it; and although his immediate personal feelings were those of relief, the physical ease was purchased at too great a price.

From the outset of the last illness the case was, in our judgment, hopeless, unless the higher cerebral centres of the nervous system came to the relief of the lower. The bronchitis was not a "complication," but an integral part of the gouty affection. It was, in the history of the noble lord's life, one of the earliest indications of the gouty diathesis, the next in order of time being slight gastric and intestinal irritation. It must ever be a source of regret that Lord Rowton, who alone had stood in close personal relations with the deceased gentleman during many recent and trying years of his life, was unavoidably absent during the first and only hopeful stage of his illness. It is also, we think, unfortunate that Lord Rowton did not see the noble lord until four days after his return, whatever may have been the fact as to Lord Beaconsfield's own wishes in the matter! It is, again, we think, to be regretted that Her Majesty's graciously expressed desire to visit the noble lord was not carried into effect. We must be excused for giving expression to these regrets—they are essential to the professional view we take of the illness. In the end, death occurred, as it must have been expected to occur, after a temporary revival of the failing powers of vitality such as is usually manifested in cases of the class—in the closing days of a life lived, mainly, by mental energy or mind-force. The apparent improvement which took place towards the end of last week, and which was attributed to "the weather," and seems to have excited false hopes, should scarcely have proved misleading.

Profound regret fills every mind, wholly irrespective of the political view which may be taken of Lord Beaconsfield's life and worth as a statesman. He died full of years and honours, but his departure will leave a vacant place in the Legislature, in society, and in the country, which cannot soon be filled.

FEES FOR POST-MORTEM EXAMINATIONS.

ATTENTION has been publicly called to the remuneration awarded to the medical man who conducts a post-mortem examination on a coroner's order. At present the fee stands at two guineas, of which one moiety is supposed to be a sufficient fee for the examination itself, and the other for the report or evidence supplied upon that examination. It cannot be questioned that this is far from being adequate. The careful conduct of a post-mortem examination itself requires the devotion of a large amount of time, and the application of much special knowledge, and it is surprising that no attempt should have been made to fix the remuneration for such highly important service to the State at a much higher rate. We are even more surprised to hear of the resolution passed at the Kent General Sessions to reduce the fee by one-fourth in such cases where a report only is required, and no evidence in the coroner's court called for. On narrow technical grounds, and in a spirit of false economy, such a resolution might perhaps be justified; but it has been overlooked that the labour to the medical man is just as great; his expenditure of time almost as much, whether he simply furnishes a report or gives his evidence orally, whilst the written report obviates the necessity of unnecessarily multiplying inquests, and is thus a saving of much expense. Accordingly the action taken by the medical practitioners of the Greenwich district in refusing to submit to the new resolutions is one which will be appreciated by the profession throughout the country. It is only by such action that they can bring home to the authorities the fact that the number of inquests is controlled by the reports furnished by the medical men, and it will, it may be hoped,

lead eventually to a rescinding of the obnoxious resolution. Unfortunately at present this does not seem to be the opinion of the magistrates of the district, for they have ordered that in twelve cases where inquests might have been avoided had a report been sent in, a sum of 10s. 6d. be deducted from the coroner's bill in each case—a proceeding which is certainly not calculated to get over the difficulty! A good effect will be produced by the business if it lead to the whole question of remuneration for post-mortem examinations in medico-legal inquiries being reconsidered, and coroner's law being revised in a manner which shall recognise more liberally and justly the extreme importance of the part taken by the medical man in these grave and difficult matters.

THE SALIVARY GLANDS IN RABIES.

THE condition of the salivary glands in rabies both in the dog and in man has been investigated by Dr. A. Elsenberg of Warsaw. Singularly few observations on the point are on record, in spite of the significant fact that the saliva is the chief vehicle of the infection. Nepreu found in one case a considerable small-celled infiltration of the interstitial tissue of the gland. A similar alteration was also found by Coats, who also described as a characteristic feature the accumulation of small round cells in the neighbourhood of the veins. Elsenberg, who seems to be ignorant of the investigations of Coats, has examined the salivary glands from twelve dogs and two men affected with the disease. The results have been published in the *Centralblatt für Med. Wissenschaften*. In the dog the most striking changes were found in the sublingual and submaxillary glands. The former were slightly enlarged, greyish-red in colour, with a smooth section, presenting here and there an indistinct appearance of acini. Microscopically the interstitial tissue was infiltrated by small round cells, with one or several nuclei, apparently identical with pale blood-corpuscles. The infiltration was greatest around the ducts and around the medium-sized veins in the hilus of each acinus, and gradually lessened towards the periphery, while in the hilus of the gland itself it was entirely absent. In many places the infiltration was so extensive as to resemble a point of suppuration. In the interacinal tissue the infiltration was far slighter. The "fixed cells" of the interstitial tissue were slightly enlarged, but showed no indication of multiplication. The bloodvessels, especially the small veins and capillaries, were much dilated, and the distending blood contained a large proportion of white corpuscles, which were in part diffused among the red corpuscles and in part were aggregated against the side of the vessel. The epithelium of the alveoli was unaltered, the secreting cells contained a granular mucoid substance, while the nuclei were enlarged. The peculiar crescentic cells were enlarged to such an extent as to occupy two-thirds of the lumen of the alveoli, and their nuclei were increased in number to two or three times the normal. Besides these alterations, the glandular alveoli contained an inconsiderable number of small round cells like the leucocytes which thronged the interstitial tissue. Very similar changes were found in the medium-sized ducts. Small round cells, passing through the wall, had raised the epithelium, separated individual cells, and penetrated into the lumen of the duct. A similar infiltration of small round cells was observed around and even within the nerve ganglia. Changes similar in character, but slighter in degree, were found also in the sublingual gland. The orbital glands of the dog belong to the same category of glands, but were in each case very little changed. In the three salivary glands the changes above described were always to be found in greater or less degree. The parotid gland, however, showed only slight changes in four of the dogs. The small celled infiltration of the interstitial tissue was considerable. The glandular cells were a little enlarged, somewhat granular, and contained two or more nuclei. In man the parotid gland was always found healthy. The changes in the submaxillary gland were always slight, being confined to a small celled infiltration of the tissue around the ducts and middle-sized veins. The most intense changes were found in the sublingual gland, and were exactly similar to those described in the dog, although less intense in degree. These changes point to the pathological process, which we call inflammation, to be ascribed to an infectious material circulating in the blood, and excreted by the salivary glands. Although the submaxillary and sublingual glands present such intense changes, the mucous glands at the base of the tongue are seldom altered, and hence it is conjectured the specific infectious material is to be found in the saliva alone. The salivary glands rarely present changes in other diseases, and no alterations have ever been found in the dog in any other disease than rabies. Hence their presence in any given case would constitute very important corroborative evidence that the disease from which the animal died was really rabies. The only possible fallacy would arise from the circumstance that certain alkaloids—nicotin, pilocarpin, and muscarin—cause changes which are somewhat similar, but they are so trifling in degree that little error is likely to arise from this source. But in man the changes in the glands are far too slight to be of diagnostic importance, and seem to be met with in other infectious diseases.

SENIOR WRANGLERS AT CAMBRIDGE AND MEDICINE.

IN our last issue we announced that Mr. Donald M'Alister, the senior wrangler at Cambridge in 1877, had been admitted to the degree of M.B. It is just one hundred years since that the two sons of Dr. James Ainslie, a distinguished physician at Kendal, graduated as senior and second wranglers in the Mathematical Tripos of 1781. The younger son, Henry, was senior. He afterwards graduated in medicine, became a Fellow of Pembroke College, and, commencing the practice of his profession in Cambridge, was elected physician to Addenbrooke's Hospital. He subsequently settled in London and became one of the physicians to St. Thomas's Hospital. The elder son, Montague Farrer Ainslie, was bracketed second wrangler with Law, afterwards Lord Bishop of Bath and Wells. In 1815, the year in which Sir Thomas Watson graduated as tenth wrangler, a son of the senior wrangler of 1781 obtained the eighth place, and was afterwards for forty-two years Master of the college of which his father had been a Fellow. Bickersteth, the first Lord Langdale, who was senior wrangler in 1808, relinquished the study of medicine for the more lucrative and ambitious pursuit of law. These, as far as we are aware, are the only senior wranglers who have devoted themselves to medical studies.

WESTMINSTER HOSPITAL.

SEVERAL changes have been recently made in the staff at Westminster Hospital and School. Dr. Murrell has been appointed lecturer on Materia Medica and Therapeutics in place of Dr. Phillips, who has never sufficiently recovered from his railway accident to enable him to resume his duties at the hospital. Dr. Murrell's appointment creates a vacancy in the chair of Practical Physiology. Dr. Leslie Ogilvie has been appointed lecturer on Comparative Anatomy, *vice* Dr. Carter Blake, resigned, and Dr. George Ogilvie has been appointed lecturer on Experimental Physics in succession to the late Mr. Charles Brooke.

STATISTICS OF COLOUR-BLINDNESS.

THE Report of the Committee appointed by the Ophthalmological Society to collect statistics of cases of colour-blindness presents many features of special interest. The secretary of the Committee, Dr. Brailey, with the assistance of sixteen colleagues, has examined 18,088 persons of all classes, of whom 1657 were females. It is at once curious and suggestive to find that while the average percentage of colour defects among men is 4·76, and 3·5 for very pronounced defects, it falls in women to the low figure of 0·4. This, if true, would seem to suggest a new sphere of labour for women. If women are comparatively free from colour-blindness, they are so far specially indicated for many of the less laborious occupations in which good colour-perception is desirable or absolutely indispensable. It is satisfactory to find that these last statistics confirm, in the main, those collected by the late Dr. George Wilson of Edinburgh nearly thirty years ago. This is especially noticeable as regards the comparative frequency of colour defects among members of the Society of Friends, particularly among the poorer section of them. Though the members of the Ophthalmological Society seem either not to have known the fact or to have forgotten it, Dr. Wilson found a considerable number of cases of colour-blindness among the members of the Society of Friends, and he was of opinion that this was not an accidental circumstance. He further believed that the largest proportion of cases of colour-blindness would on extended examination be found among the less accomplished male Friends in the larger cities. The other matters dealt with in the report prepared by Dr. Brailey will be found in another column.

THE CHAIR OF PATHOLOGY IN EDINBURGH.

THE appointment, by a unanimous vote of the curators, of Dr. Wm. Smith Greenfield to the Chair of Pathology in the University of Edinburgh is a most creditable and auspicious event. We do not know whether it is more creditable to the University or to Dr. Greenfield. When an institution has reached that pitch of fame and prosperity now attained by the Edinburgh University it is apt to think that it may act partially and indifferently—that an important chair may be given away to a worthy graduate without respect to the abstract claims of candidates. It was well known that in this contest more than one graduate of the Edinburgh University was in the field who may reasonably hope ere long to find himself in the professoriate of this ancient and yet ever-young institution. But the curators seem to have regarded only the supreme question—Who is the fittest candidate for a Chair of Pathology? and to have acted accordingly. We congratulate them on the result.

SUPERANNUATION OF IRISH POOR-LAW MEDICAL OFFICERS.

ON Monday last a deputation from the Irish Medical Association waited on the Chief Secretary for Ireland for the purpose of endeavouring to obtain a promise from the Government to introduce a Bill into Parliament for the compulsory superannuation of Poor-law medical officers in Ireland. The deputation was introduced by Mr. C. H. Meldon, M.P., and explained that they wished an Act to be introduced on the principles of the superannuation of civil servants. The interview was a lengthened one, and ultimately Mr. Forster promised to see the Vice-President of the Local Government Board on the subject, and give the points brought under his notice his best consideration. He, however, suggested that it would be advisable for some private member or members to introduce a Bill on the subject, and not leave the responsibility to the Government.

ALLEGED MANSLAUGHTER BY AN UNQUALIFIED PRACTITIONER.

AN inquest in the case of Caroline Murrell has ended in the jury returning a verdict of "Manslaughter" against Mr. Scott, who is committed to the Old Bailey for trial. The deceased was on the point of her confinement, and at her request her husband fetched "a Mr. Scott from a dispensary at 547, Battersea-park-road." "Dr. Martin," of 1, Napier-terrace, also gave evidence to the effect that he allowed his name to be put on a brass plate outside of Mr. Scott's house. "He himself had not passed the necessary examination." Dr. Hills deposed that he was called in after death. He and Mr. Oakman made a post-mortem examination, and found that the deceased died from exhaustion, and might have been saved if proper measures had been taken. Mr. Scott honestly said he was a medical student, and, the patient being strong and healthy, he left Nature to complete her work. We must not prejudge a case which has to be tried formally. But we may at once say how unpleasantly cumulative is the evidence that London is covered with so-called "dispensaries," in any one of which poor people are led to think they are being treated by a qualified practitioner, and then find, or their survivors find, that they have been treated by a person totally unqualified.

THE EARTHQUAKE AT CHIOS.

THE correspondent of the *Manchester Guardian*, who would appear to be a member of the medical profession, gives a graphic description of the harrowing scenes he witnessed at Chios after the appalling calamity which has desolated this fair isle. The following excerpt is of professional interest. The communication is dated April 8th:—

"We arrived here on Saturday last, after a quick run of thirty-six hours, and ever since I have been busily engaged setting fractures and binding up wounded heads and limbs. I am at work in a hospital made of ships' sails, and my patients arrive in an endless string of ghastly subjects. The sisters from the Deaconess Establishment of Smyrna are doing splendid work in the way of nursing, but it need not be mentioned that the workers are none too many. You cannot conceive the state of destruction and confusion on shore. The scene is indescribable. The houses of the town still standing are all deserted, the ground is still rocking slightly from time to time, and no one hardly ventures into the streets where there are walls still above ground. The search for victims amongst the ruins is, however, going on most actively. The distress everywhere is very great, but the committee now organised for the distribution of relief is sending off supplies of food to all parts of the island. Whilst death has overwhelmed whole families, there have been some remarkable escapes. I have had to-day under my hands a woman who was confined whilst under the ruins, and, strange to say, although three days elapsed before she was rescued, both she and the baby are still alive."

VIOLATION OF THE MEDICAL ACT.

AT the Bristol Police Court a few days ago, Mayfield and Eugenie Lilly were charged with unlawfully, wilfully, and falsely pretending to be doctors of medicine and general practitioners in medicine. The defendants used to do their work in grand style. According to Police-sergeant Hunt they were accustomed to drive through the city in a carriage, with a Scotch piper. The male defendant claimed to have the right of practising under the 3rd of Henry VIII., providing that it should be lawful for any person having knowledge and experience of herbs, roots, and waters to practise, use, and administer them for any wound or outward sore. The magistrates were nevertheless quite convinced that he had violated the law, and inflicted the full penalty of £20. This

decision still leaves the piper and the female defendant to carry on the business of specialists so long as they avoid the use of medical titles. This very proper prosecution was undertaken and carried through by the police of Bristol, who deserve much credit for tracking the defendant in his flight from town to town after learning that the magistrates of Bristol desired to see him.

HOSPITAL SATURDAY IN MANCHESTER.

THE duty of the working classes in reference to Hospital Saturday is being warmly discussed in Manchester and other towns. A correspondent, "J. S.," of the *Manchester Guardian*, does not see the propriety of manufacturers bringing any pressure to bear on their men. In this we agree with him. We do not go with him in setting the Manchester and Salford provident scheme against the case and cause of the Manchester hospitals. No contributions to a provident dispensary scheme can possibly exonerate a thoughtful working man from some obligation to the large hospitals, which can be most easily discharged by a small periodical payment.

FELLOWSHIP OF THE EDINBURGH COLLEGE OF SURGEONS.

WE have reason to know that the manufacture of Fellows of the Royal College of Surgeons of Edinburgh by the easy process of testimonials and payment, and on the nomination of, we must admit, some very respectable men, still goes on. We should like to be favoured with the periodical list of petitions for the Fellowship, and with the results of the ballot in individual cases. In a list before us there are petitioners from London, Edinburgh, Cumberland, Berwick-on-Tweed, Staffordshire, Stockport, Buxton, and Cape Colony.

ACCORDING to a paragraph in *The Times* there were in the past winter in the twenty German Universities 21,164 students, of which 4405 were medical students. They were distributed as follows:—Berlin, 4107; Leipsic, 3326; Munich, 1890; Breslau, 1281; Halle, 1211; Tubingen, 1074; Gottingen, 959; Wurzburg, 921; Bonn, 887; Konigsberg, 788; Strasburg, 745; Marburg, 604; Greisfald, 599; Heidelberg, 543; Erlangen, 473; Freiburg, 443; Jena, 438; Giessen, 391; Kiel, 284; Bostock, 200.

WHILST at St. Petersburg recently the Duchess of Edinburgh visited the establishment for hospital attendants and assistant-surgeons instituted by the late Empress. She was accompanied by Dr. Berthenson, and conversed with many of the sick, remaining some time in the section of the building devoted to the patients suffering from typhoid fever.

AT a meeting of the Reading Pathological Society held on the 13th inst., the following resolution was passed:—"That the members of this Society emphatically condemn any consultation between practitioners of general medicine and reputed homœopaths."

DR. PLANCHON has been nominated to the Chair of Botany and Natural History in the Faculty of Medicine of Montpellier.

THE death is announced of Dr. Ludwig Waldenburg, Professor in the University of Berlin, physician at the Charité Hospital, and editor of the *Klinische Wochenschrift*.

MADAME IVANITSKY has been elected principal Clinical Physician of the University of Kharkov.

AT the adjourned ordinary meeting of the Sanitary Institute of Great Britain, to be held at 9, Conduit-street, on Wednesday, April 27th, at 8 P.M., the discussion will be continued upon the address delivered at the last meeting—namely, "Suggestions for the Management of Cases of Small-pox and of other Infectious Diseases in the Metropolis and large Towns," by Dr. Richardson, F.R.S., Chairman of Council.

NOT one of the essays on Diphtheria sent in by competitors for the prize offered by the Empress of Germany is, in the opinion of the appointed jury, worthy of the reward.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

River Tyne Port Sanitary Authority.—We regret to learn from this report that the medical officer of the Tyne ports, Dr. J. B. Bramwell, had been unable from illness to attend to his duties during the period to which it refers. The duties of the office were undertaken by the deputy medical officer, Dr. J. W. Bramwell, and upon him has devolved the drawing up of the report for 1880. From it we gather that the work of the port sanitary authority is now being as systematically carried on in the Tyne ports as at Sunderland, and doubtless with as good results; but the report wants the clearness and simplicity of arrangement which makes Dr. Yeld's reports so acceptable. The introduction of infectious diseases by shipping into the river is carefully watched, and the sanitary authority's floating hospital renders excellent service; while no less than 2997 vessels were inspected in the course of the year, an increase of 587 over those visited in 1879. Of these vessels, 1229 were reported in good sanitary condition; 1425 as "passable" only; and 343 in an insanitary state. With regard to these latter it was necessary for the port sanitary authority to take action, and they issued notices for certain matters to be done by the masters, 331 being complied with, the results of the notice not being ascertained in 12.

Faversham (Urban).—Mr. W. E. Atthill's report for this district for 1880 opens with the significant statement that in an extensive epidemic of measles which had prevailed early in the year, whooping cough being at the same time present in the district, he had been impressed by the facts that both diseases had "sprung up at the commencement almost entirely from those localities where the houses and their occupants are filthy and neglected, the former damp and wet, where large families crowd together in small ill-ventilated habitations, and where the provision of pure water is for the most part a questionable point." This sentence is painfully suggestive of sanitary negligence on the part of the sanitary authority. Nuisance removal appears, however, to be attended to, but strangely enough (and this particularly in an increasing town) house-drainage does not seem to have been seriously considered, and the sanitary authority are permitting to grow up in the new parts of Faversham evils similar to those which exist too largely in the old parts. Mr. Atthill is of opinion that the conditions which foster the spread of enteric fever foster also the spread of scarlet fever; he especially refers to the spread of the latter fever by means of contaminated drinking water, and it would appear that Faversham has, from the existence of shallow wells in the town, large opportunities for spreading maladies which may be conveyed by polluted water.

Halifax Union (Combined).—This combination consists of one *rural* sanitary authority (Halifax), and seventeen urban sanitary authorities, situated within the Halifax Union. Dr. Britton introduces his report for the several districts of which he is medical officer of health by some observations on the changes which have taken place in them since he was first appointed, now seven years and three-quarters ago. Speaking of the districts generally, he states that there has been a conspicuous abatement of nuisances, and that the nuisance inspectors do their work well, and maintain the greater

general cleanliness of the district. The sanitary authorities themselves are more alive to the requirements needed for the proper sanitary administration of their districts. The offensive open ashpit and midden system, which in the beginning was in full operation throughout the district, is now much ameliorated by the substitution of better constructed ashpits and middens in some places, and by the covering up of hundreds in other places. The various water-supplies kept under constant supervision have been largely improved, the hospital accommodation for infectious diseases amended, and an immense quantity of detailed sanitary work done necessary to the improvement of the health-conditions of the districts. It seems almost an impracticable task to supervise the sanitary condition of the numerous districts under Dr. Britton's care. Nevertheless he contrives to do it to the full satisfaction of the authorities, to the very obvious and increasing benefit of the districts, and to present here an account of his doings in considerable detail for the combined district as a whole, as well as for the several districts entering into the combination. The report is a remarkable illustration of what may be done by a single individual working upon a thoroughly well-considered system.

St. Mary's, Newington (*Metropolis*).—Dr. W. Tiffin Iliff's annual report for 1880 for this district of the metropolis sets forth the annual work of a metropolitan health-officer when no special incidence of epidemic disease upon the locality under his supervision comes to disturb the even course of sanitary administration. He reserves general considerations on birth-rates and death-rates until the results of the recent Census can be obtained, feeling that estimates made of the population of his district at the present time must be misleading. Dr. Iliff, although convinced what sanitary work can do for the London poor is being done and slowly making progress, cannot avoid reflecting upon the gigantic task which is presented to health reformers. He admits the growth of pure and more open streets, the abolition of dire and ill-ventilated courts and by-ways; the destruction of "rookeries." "True," he says, "this is all good, but where are the hundreds and thousands to go? where are the healthy abodes and rents commensurate with their small earnings? How few really know the sad, sad story of the London poor, struggling, striving, and too often sinking, uncared for and unknown." But the causes producing this condition of things have been in operation for ages; the means of amelioration but a poor half-century, and yet we see progress.

Dorchester, Rural (*Eastern Division*).—Our attention has been directed to an error in our notice of Dr. Day's report for this district. The cesspool which we particularly referred to was unwittingly described as "*constructed*," when it should have been described as having been filled up and done away with.

Dawlish.—Estimated population, 1880, 3838; birth-rate 25·3 inhabitants; death-rate 22·9 (excluding the deaths of visitors 21·1).

A ROUND-ROBIN.

The Guardians of the Sedburgh Union, in Yorkshire, through the medium of their Chairman, have circulated a round-robin among other Boards of Guardians elsewhere, condemnatory of the proceedings of the Local Government Board, and trusting that Guardians in general will take part with them. This round-robin sets forth that the Sedburgh Guardians "whilst believing that the central authority should continue to be invested with the laying down and carrying out of general principles, subject to some elasticity according to different local circumstances, regret that the Local Government Board has gradually enforced to such an extent the absolute power with which they are invested that Boards of Guardians have now degenerated into mere machines, without authority or right to conduct their own affairs except on the hard and fast lines of the Central Department. On this subject my Board has recently addressed to the President of the Local Government Board a memorial, of which I enclose a copy, and I beg to request that you will bring it before your Board, with a view to their taking similar action."

THE SANITARY CONDITION OF NORTH WALES.

An important deputation, representing the sanitary authorities of four rural and five urban districts in the counties of Denbigh, Flint, and Merioneth, had an interview with the President of the Local Government Board a few days ago, with regard to the subject to which we referred the week before last—namely, the compulsory combination for the election of a single medical officer of health of the sanitary districts in question. The deputation protested against this course as against the feelings and the judgment of the ratepayers of the localities affected by it, and as not called for, in the opinion of the deputation, by the sanitary circumstances of the localities. It appeared, however, that the objections of the deputation dealt rather with the mode in which the Local Government Board had made its intentions known than with the intrinsic merits of the propositions. Mr. Dodson promised careful consideration of the objections brought before him, and hinted that he was not unwilling to delay action, if certain amendments were promised by the sanitary authorities in matters which he pointed out.

THE GRANTHAM HOSPITAL CASE.

We are exceedingly glad to have to state that the Supreme Court of Judicature have reversed the judgment of the Court below in the case of Eaton *v.* Basker so far as it concerns the Corporation of Grantham. Our readers will remember that Mr. Eaton claimed a sum of money from the Corporation or its sanitary committee for services rendered in a temporary hospital for scarlet fever during a severe epidemic in the town not long ago. Neither the services nor the justness of the charges were disputed, but the Corporation sought to escape responsibility on a legal point, which, although it was admitted by the judge in the lower court, Mr. Justice Stephen, was admitted in terms of stinging sarcasm. On appeal, however, the Supreme Court has now reversed Mr. Justice Stephen's judgment as concerns the Corporation of Grantham, and this most discreditable case as regards the local administration of Grantham will now end, we suppose, in the Corporation paying Mr. Eaton's rightful claim; we trust with the full costs to which he has been subjected also.

At a recent meeting of the Chelsea Vestry, the Sanitary Committee, among other matters, submitted with approval a series of suggestions made by the medical officer of health, Dr. Barclay, as to the manner in which the sanitary laws might be amended. The suggestions were as follows—namely, that penalties should be imposed by an Act of Parliament on people (other than duly qualified medical practitioners) who visited or attended any person suffering from any dangerous infectious disease, and who concealed the fact of such visit so as to endanger the health of other persons; secondly, on people who, after such visit, did not employ the best known means for the disinfection of clothing before coming in contact with other persons. A further penalty (suggested at £5) was proposed for neglect or delay of isolation. A motion that these should be sent to other vestries for their consideration was rejected, one of the members contending that such penal propositions would never be sanctioned by the Legislature, and that it was unlikely they would be tolerated by the British public. The propositions were withdrawn, and it was resolved to defer further action in regard to them until the receipt of the report of suggestions recommended by Kensington.

Among all the discussions which have gone on in the press about the infectious hospital dead-lock in the metropolis it has been reserved for our contemporary, the *Metropolitan*, to see that the true way out of the difficulty is to revert to the principles of administration in regard to hospitals found in the Sanitary Act, 1866. It justly condemns the cry for legislation, and, again fresh legislation and the difficulties raised about non-pauper patients, and roundly rates the Kensington people, and the Vestries and District Boards that have taken part with them, for their short-sightedness—a short-sightedness which tends to give them up, bound hand and foot, into the hands of the Local Government Board.

It is to be hoped that, as one of our contemporaries aptly expresses the matter, "the criminal craze of anti-vaccination" at Brighton will receive some check from the result of the recent election of guardians for that celebrated health-resort. Eight acknowledged anti-vaccinationists were brought forward as candidates for seats on the Board. Not only were all rejected, but an anti-vaccinationist who already had a seat on the Board, and was a candidate for re-election, was also rejected.

An instructive illustration of the extraordinary want of acquaintance not unfrequently found among the educated classes with the ordinary forms of local administration in this country, was recently furnished by a letter from a well-known gentleman printed in the columns of *The Times*. This gentleman in his anxiety to obtain better arrangements against fires ingenuously confounded the Local Government Board with Local Boards, and failed to distinguish questions which were for the Legislature from questions which local administration could deal with.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

Urban mortality showed a further increase last week. In twenty of the largest English towns, estimated to contain in the middle of this year nearly a third of the entire population of England and Wales, 4639 births and 3343 deaths were registered last week. The births were no less than 547 below, whereas the deaths exceeded by 86, the average weekly numbers during 1880. The annual rate of mortality in the twenty towns, which had steadily increased from 20·6 to 22·4 per 1000 in the four preceding weeks, further rose to 22·9 last week. The lowest rates in the twenty towns last week were 14·8 in Brighton, 15·1 in Leicester, 18·1 in Norwich, and 19·4 in Hull. The rates in the other towns ranged upwards to 24·7 in Sheffield, 25·8 in Wolverhampton, 27·8 in Liverpool, and 28·3 in Portsmouth. During the thirteen weeks ending the 2nd inst. the death-rate in the twenty towns averaged 23·9 per 1000, against 25·7, the average rate in the corresponding periods of the five years 1876–80.

The deaths referred to the principal zymotic diseases in the twenty towns, which had been 315 and 339 in the two preceding weeks, further rose to 410 last week; these included 78 from small-pox, 81 from measles, 93 from whooping-cough, 65 from scarlet fever, and 47 from fever, principally enteric. The annual death-rate from these principal zymotic diseases averaged 2·8 per 1000 in the twenty towns, and ranged from 0·0 and 0·4 in Brighton and Leicester, to 3·4 in Liverpool and Newcastle-upon-Tyne, and 3·6 in London. Whooping-cough showed the largest proportional fatality in Manchester and Leeds, and scarlet fever in Wolverhampton. The 15 deaths referred to diphtheria in the twenty towns included 9 in London and 2 in Birmingham. The highest death-rates from fever, mainly enteric, were recorded in Plymouth, Liverpool, Sheffield, and Newcastle-upon-Tyne. Small-pox caused 85 more deaths in London and its suburban districts, and one in Oldham; no death from this disease occurred in any of the eighteen other provincial towns. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had been 820, 899, and 921 at the end of each of the three preceding weeks, further rose to 940 on Saturday last, exceeding the number under treatment at these hospitals at any time since the spring of 1877. The number of new cases of small-pox admitted to these hospitals last week was 244, against 255 and 224 in the two preceding weeks. The Highgate Small-pox Hospital contained 85 patients on Saturday last, showing an increase of 8 upon the number in the previous week; 28 new cases were admitted during the week.

The deaths referred to diseases of the respiratory organs in London, which had slowly increased from 345 to 359 in the four preceding weeks, further rose to 395 last week; they were, however, 14 below the corrected average number in the corresponding week of the last ten years, and included 250 from bronchitis and 105 from pneumonia. The annual death-rate from lung diseases, exclusive of phthisis, was equal to 5·6 per 1000 in London last week. The rate from the same disease was no less than 7·6 in Liverpool, while it did not exceed 4·8 in Salford.

The causes of 75, or 2·2 per cent., of the deaths in the twenty towns last week were not certified either by a registered medical practitioner or by a coroner. The proportion of uncertified deaths did not exceed 1·3 per cent. in London, while it averaged 3·1 per cent. in the nineteen provincial towns. No uncertified deaths were recorded last week in Portsmouth, Norwich, Bristol, or Nottingham; while the proportions of such deaths were largest in Oldham and Newcastle-upon-Tyne.

HEALTH OF SCOTCH TOWNS.

In eight of the largest Scotch towns, having an estimated population of rather more than a million and a half persons, the annual death-rate last week was equal to 22·1 per 1000, against 20·7 and 23·5 in the two preceding weeks; this rate was 0·8 below the average rate in the twenty English towns. The rates in the eight Scotch towns ranged from 19·0 and 19·9 in Greenock and Leith, to 29·2 and 29·7 in Perth and Paisley. The deaths referred to the principal zymotic diseases in the eight towns, which had been 69 and 82 in the two preceding weeks, declined again to 69 last week; they included 24 from whooping-cough, 12 from diarrhœa, 11 from diphtheria, 10 from scarlet fever, 7 from "fever," 5 from measles, and not one from small-pox. The annual death-rate from these zymotic diseases averaged 2·7 per 1000 in the eight towns, which was slightly below the average rate (2·8) from the same diseases in the twenty English towns. This zymotic death-rate in the eight Scotch towns ranged from 0·6 and 1·9 in Greenock and Perth, to 3·6 and 3·9 in Edinburgh and Dundee. The fatal cases of whooping-cough, which had been 16 and 26 in the two preceding weeks, were 24 last week, of which 10 occurred in Glasgow, 5 in Edinburgh, 5 in Dundee, and 2 in Aberdeen. The 12 deaths from diarrhœa showed a decline of 8 from those returned in the previous week, and included 6 in Glasgow and 3 in Dundee. The 11 deaths referred to diphtheria were within one of the number recorded in each of the two previous weeks; 4 occurred in Glasgow, 3 in Edinburgh, and 2 in Dundee. The 10 fatal cases of scarlet fever exceeded the numbers in recent weeks, and included 6 in Edinburgh and 2 in Glasgow. The 7 deaths referred to "fever" (typhus, enteric or typhoid, and simple continued) were fewer by 4 than the number in the previous week, and included 3 in Glasgow; the annual death-rate from this cause scarcely differed from that which prevailed in the twenty English towns during the week. Four of the five deaths from measles occurred in Glasgow. The deaths referred to acute diseases of the lungs in the eight towns, which had been 138, 146, and 163 in the three preceding weeks, declined again to 144 last week, and were equal to an annual rate of 5·7 per 1000, against 5·1 from the same diseases in London. The greatest proportional fatality from lung diseases occurred last week in Glasgow, Perth, and Greenock.

HEALTH OF DUBLIN.

The rate of mortality in Dublin although still excessive showed a further decline last week. The annual death-rate in the city, which had been equal to 30·8 in each of the two preceding weeks, declined to 29·0 last week. During the thirteen weeks ending on the 2nd instant, the death-rate in the city averaged no less than 37·8, against 23·4 in London and 22·3 in Edinburgh. The 185 deaths in Dublin last week showed a decline of 12 from the number in the previous week, and included 12, or scarcely more than 6 per cent., which were referred to the principal zymotic diseases, against 19, 15, and 14 respectively in the three preceding weeks. These 12 deaths from zymotic diseases included 7 from fever (typhus, enteric or typhoid, and simple continued), 2 from scarlet fever, 2 from diarrhœa, 1 from whooping-cough, and not one either from small-pox, measles, or diphtheria. The annual death-rate from these zymotic diseases did not exceed 1·9 per 1000 in Dublin last week; whereas it was 3·6 both in London and Edinburgh. The deaths referred to fever, which had been 12, 7, and 8 in the three preceding weeks, were 7 last week; the annual death-rate from this cause was nearly four times as high in Dublin as the average rate in the twenty English towns. The deaths referred to the other principal zymotic diseases were again exceptionally few. The deaths of infants showed a decline, and those of elderly persons were fewer than in any recent week.

THE HEALTH OF CAPE TOWN.

We are in the receipt of a Government notice, issued by the Colonial Secretary of the Cape of Good Hope, which contains a return of vital statistics prepared by the Colonial Medical Committee, from information furnished by the Town Council of Cape Town, for the year 1880. We fear, however, that the statistics are scarcely of a character to afford much trustworthy information bearing upon the health condition of Cape Town. In the first place, the population is roughly

stated to be 50,000, without any clue to the manner in which this estimate is arrived at; whereas a leader in the *Cape Times* declares 35,000 to be a reasonable estimate of the total population of the municipality of Cape Town. We shall presently see what an important bearing these wide variations in the estimates of the population have upon the vital statistics of the town. It is evident that registration of births, whatever may be the case as regards registration of deaths, is comparatively inoperative in Cape Town. A note to the first table in the report states that "the number of children registered at the Town House, as born during 1880, amounts to only 326 in a population of 50,000." This represents a birth-rate of but 6·5 per 1000 of the population; and as the death-rate is stated to be 21·8, the report adds the words, "At this rate the population must soon die out from want of recuperative power." It is quite evident that birth registration is a farce in Cape Town, and that the numbers recorded afford no clue to the number of births occurring among the population, and it seems somewhat surprising that this fictitious birth-rate should be referred to in the official return as evidence of want of recuperative power in the population. When we begin to analyse the mortality statistics they do not appear to be much more trustworthy than the statistics of births. The number of deaths registered at the Town House in 1880 is reported to be 1189; by exclusion of stillbirths, the number is reduced to 1092, which gives (calculated upon the estimate of 50,000) a death-rate of 21·8 per 1000. If, however, the *Cape Times* is justified in assuming that 35,000 is a more reasonable estimate of the population, it follows that the death-rate in Cape Town during 1880 was equal to 31·2 per 1000, instead of 21·8. Such a death-rate as 31·2 would afford the strongest evidence of insanitary condition. The return includes certain figures bearing upon the ages of the decedents and the causes of the deaths. The age statistics are materially depreciated by the fact that age is not stated in 13 per cent. of the deaths recorded. With regard to the deaths of children, 411 deaths are reported under five years of age; but it is impossible to estimate how many of the 136 cases in which the age was not stated were of children under five years of age. It is probable, however, that not far short of half the total deaths were of children under this age, and it appears that the 411 deaths under five years included 252 from such ill defined causes as convulsions, teething, and debility, in addition to 29 in which the cause was unknown. The causes of death are evidently most vaguely returned, very considerable numbers being returned under the headings inflammation, dropsy, consumption, &c. With regard to the so called zymotic diseases, whooping-cough is debited with 36 deaths, whereas only 2 deaths were referred to measles, 5 to diphtheria, including ulcerated throat, and not one to small-pox or scarlet fever. No less than 41 deaths, however, were referred to fever, including enteric and undefined fever, which affords conclusive evidence of dangerous filth contamination in some form or other. Perhaps the most satisfactory feature of the return of causes of death is the remarkably small proportion of deaths from acute diseases of the lungs, among which but three were referred to bronchitis. Before another annual return for Cape Town is issued a Census will have set at rest the serious discrepancies between the local estimates of population; and it may be further hoped that the value of the return as a contribution to sanitary statistics will be further increased in other ways.

HEALTH MATTERS GENERALLY AT HOME AND ABROAD.

DR. B. W. RICHARDSON, F.R.S., ON THE MANAGEMENT OF SMALL-POX ETC. IN THE METROPOLIS AND LARGE TOWNS.

On the 13th instant Dr. B. W. Richardson delivered an address before the Sanitary Institute on the Management of Cases of Small-pox and other infectious Diseases in the Metropolis and Large Towns. This, the first intervention, we believe, of Dr. Richardson in the question which at the present moment is agitating sanitary workers in the metropolis, brought together a large audience of persons having more or less responsible relations with metropolitan sanitary administration, and anxious to hear what new light the learned Chairman of the Council of the Sanitary Institute might throw upon the difficulties of the situation. The address first touched upon the obstacles that lie in the way of the practical management of persons suffering from infectious diseases in large cities and towns. It then treated briefly of the registration of diseases, and next entered upon matters of more immediate interest to the public at the present moment. Dr. Richardson declared himself utterly opposed to the collection together of great numbers of infectious cases in large hospitals, and to the management of such cases and of the institutions prepared for them by an organisation common to the whole of the metropolis. The results of recent experience in this matter confirmed an opinion formed on other grounds, and which he would now reiterate, that every parish should bear its own burden, and accept its own responsibilities for the retention and management of the infectious cases occurring within its own boundaries. He would have parish hospitals, each of which should be constructed to receive twenty-four patients (preferably twenty), and each constructed after a particular fashion. As many of these hospitals as may be found to be necessary should be constructed in each parish, and they should be placed under the supervision of the medical officer of health, and under the entire control of the sanitary authority, becoming an essential element in the sanitary administration of the parish. Difficulty of acquirement of sites he would meet by placing these small hospitals upon the upper part of terraces of houses, to be acquired by the parish authorities for the moment. The hospital should be constructed on the cellular system, built of iron (so that its walls could be purified both by fire and water), lighted and ventilated from the roof, and so arranged and managed that its presence above would not militate against the letting of the houses below. A more startling or bolder scheme was, perhaps, never before urged even by Dr. Richardson himself, and its novelty for the moment seemed to put out of sight the not less bold proposition to revert to parochial administration in the present difficulty as to the provision of hospital accommodation for the infectious sick. The discussion on the address was not completed during the evening, and it has been adjourned until the 27th inst. We reserve further observations on Dr. Richardson's suggestions until after the termination of the discussion.

THE DEATH-RATE OF DUBLIN.

A conjoint report of the King and Queen's College of Physicians and of the Royal College of Surgeons in Ireland on the death-rate of Dublin has been issued. The report begins with the admission that "the existence of an excessive mortality in the City of Dublin is proved beyond doubt;" and proceeds to set forth the causes to which this should be assigned, and the measures, both present and future, which in the opinion of the Colleges are requisite to combat the high mortality. First, it expresses the opinion that this high mortality is not to be attributed to the system of death registration peculiar to the city, a notable increase of population, the immigration of sick persons from the provinces, the geological conditions of Dublin, or the climatology of the city. The report next recognises the following conditions as the most potent in determining its excessive mortality—viz.: (*a*) The faulty structural condition, insanitary arrangements, and overcrowding of tenement houses ("the prime source and cause of the excessively high death-rate of Dublin"). (*b*) The insufficiency of public and domestic scavenging. (*c*) The presence and the unsatisfactory condition of numerous slaughter-houses, cow-yards, and manure depôts within the most crowded parts of the city. (*d*) The defective state of the drainage of many houses, even in the best parts of the city. (*e*) The defective construction of new dwelling-houses. (*f*) The use of cellars as human habitations or as receptacles for decaying animal and vegetable refuse. (*g*) The dissemination of noisome and poisonous vapours by chemical and other manufactories. (*h*) The very uncleanly and intemperate habits of certain classes of the people. (*i*) The saturation of the subsoil. (*j*) The spread of infection by—1, the concealment of infective disease; 2, the inadequate disinfection of rooms and clothing; 3, the injurious practice of wakes. (*k*) The insufficient provision for the conveyance of infected persons to hospitals. Each of these subjects is considered briefly, together with the remedial measures to which they should give rise, and finally the opinion is deliberately expressed that:—"The City of Dublin is, and has been, unhealthy in an excessive degree, and its extraordinary death-rate is attributable—not to errors of computation, or irremediable circumstances—but to long-continued disregard

of sanitation, and the omission to enforce the legal means provided for a remedy." The report is signed for the King and Queen's College of Physicians by Dr. J. Magee Finney, and for the Royal College of Surgeons, Ireland, by Dr. Stannus Hughes, F.R.C.S., and it forms a most important contribution to the sanitary polemics of Dublin.

DIARRHŒA.

A combined meeting of the North-Western, Northern Counties, and Yorkshire Associations of Medical Officers of Health was held at the Guildhall, in York, on the 7th inst., Mr. S. W. North, medical officer of health for York, in the chair. The subject selected for consideration was diarrhœa, considered with reference to its causes, the prevalence of infantile diarrhœa during the third quarter of the year, and the pathology of uncomplicated diarrhœa. The meeting derived a special interest from the presence at it of Dr. Ballard and Dr. Parsons of the Medical Department of the Local Government Board; the former gentleman, as is known, being engaged in an official inquiry on the subject for discussion by the meeting. After some brief remarks by the Chairman opening the proceedings of the meeting, papers were read by Dr. J. C. Reid "On Some of the Causes of Infantile Diarrhœa;" the Chairman on the "History of 100 Cases of Diarrhœa;" Dr. M'Cook Weir, entitled, "Is Diarrhœa a Zymotic Disease?" and by Mr. R. S. Low, "Infantile Diarrhœa from a rural point of view." After the reading of the papers an active discussion took place, in which part was taken by the Chairman, Dr. Britton (Halifax), Dr. Scott (Ilkley), Dr. Butterfield (Bradford), Dr. Eastwood (Darlington), Dr. Blacket (Durham), Dr. Wilson (Doncaster), Dr. Parsons, and Dr. Ballard. Dr. Ballard gave some account of the inquiry respecting diarrhœa upon which he was entering for the Government, and explained that his presence there was partly in the hope of enlisting the aid of the members present in his work. "He was seeking to form a brigade of earnest workers, and he should regard it as a favour to have the assistance of any medical man who would work on the lines laid down." Dr. Ballard's observations were very warmly received, and we gather from his remarks that his inquiry begins with a very fair promise of success.

COMPULSORY NOTIFICATION OF INFECTIOUS DISEASES.

The following resolutions in reference to this subject have been adopted by the Executive Committee of the Dublin Sanitary Association:—"That, in the opinion of this committee, any Bill to provide for the notification of infectious diseases in Ireland should be compulsory, and should apply to every sanitary district in Ireland." "That the medical practitioner (if any) in attendance shall either note directly to the sanitary authority the existence of a case of infectious disease, or else hand a notification to the occupier of the house, or person in charge of inmate." "That a fee shall be payable only in case of the medical practitioner reporting directly to the sanitary authority." "That where no medical practitioner is in regular attendance on a person suspected to be suffering from an infectious disease within the meaning of this Act, it shall be incumbent on the occupier, &c., to obtain a certificate from a registered medical practitioner as to the nature of the disease, and in cases where the sick person is entitled to gratuitous medical attendance, said occupier shall obtain such a certificate from the medical officer of health of the district in which the sick person resides."

THE PUBLIC HEALTH (SCOTLAND) ACT.

The Magistrates and Council of Glasgow, as Local Authority under the Public Health (Scotland) Act, 1867, have approached the authorities of other cities and large towns in Scotland with the view of directing their attention to, and, if so arranged, conferring with them regarding the existing state of sanitary regulation. The magistrates and council desire also to arrange for joint and co-operative effort on the part of these authorities in the direction of approaching and inducing the Government to amend the Public Health Act for Scotland, and to embody in the amended Act such provisions as may be mutually deemed desirable and necessary. With this view they have transmitted to the authorities in question a statement regarding (1) the position of sanitary legislation for Scotland; (2) outlines of suggested amendments of existing sanitary laws; and (3) suggestions regarding the constitution and powers of the central and local authorities empowered to administer the sanitary laws of Scotland. The Local Authority submit certain suggestions in the way of amending existing provisions of the law.

VACCINATION AND REVACCINATION.

Dr. F. Chance has communicated to *The Times* a striking example of the value of revaccination as protective against small-pox. The master of a ship sailing from London for New York had before sailing taken on board the vessel a son suffering from small-pox. The surgeon, unwilling to denounce the master and have the case removed from the vessel, sought to obviate the evil effects its presence in the ship might have upon the crew by revaccinating them. Unfortunately the supply of vaccine lymph he was able to procure was insufficient for the revaccination of the whole of the men, and, as the event proved, while the revaccinated escaped the contagion of the disease, the men who had not been revaccinated suffered from it, the greater number contracting the malady, and three died.

Dr. Robert Cory, in a letter to *The Times*, has pointed out that the efficacy of vaccination does not rest upon statistical data alone—data of which it is not at all times easy to understand the whole meaning, or to avoid fallacies in dealing with them—but on the result of actual experiment. The efficacy of vaccination was in the first instance proved by very numerous but unsuccessful attempts to inoculate the vaccinated with small-pox, so numerous as to justify the Legislature to forbid the practice of inoculation by small-pox in any case, and to first facilitate and then enforce the practice of vaccination. It is to be regretted that Dr. Cory did not state his position at greater length. For the large use of complicated statistical data to show the efficacy of vaccination has to a great extent confused a very simple question, and tends still more to confuse it.

It is very gratifying to find architects beginning to take an active interest in the sanitary aspects of architecture. This interest was excellently shown by a lecture lately delivered before the Architectural Association by Mr. Ernest Turner, and which is now published from the columns of the *Builder* in a separate form. Professor Kerr observed, in the discussion which followed the reading of the paper, and which is stitched up with it, that he was very glad that the important subject dealt with "had at last reached the stage of being seriously discussed by architects." We are glad also, and feel assured that serious discussion of the subject by them will possibly not only remove one of the formidable obstacles in building healthy houses, but will also enlist heartily in practical sanitary work the only men we can confidently look to for the construction of wholesome dwellings and for the due development of the structural conditions on which this wholesomeness must depend.

A correspondent of *The Times*, writing under the initials "F.R.C.S.," sends a long letter on the unwholesomeness of houses, in which he instances the important principle as to houses in general, and particularly London houses, that they should be so furnished within as to afford the fewest opportunities for the collection of dust and dirt. He would have, in fact, the interior of the dwelling-house fitted up on the same principles as the interior of a hospital ward in regard "to dust-traps," and he thinks that he has succeeded in doing this in his own house, while at the same time giving sufficient regard to the æsthetics of the interior. The letter is deserving of attentive study.

LEDWICH SCHOOL OF MEDICINE, DUBLIN.—The following prizes have been awarded at the termination of the winter session:—Junior Anatomy: J. H. Griffin, 1st; J. Neill, 2nd. Senior Anatomy: A. E. W. Ramsbottom and J. Niblock, equal. Surgery: P. Walsh, 1st; W. R. P. Jones, 2nd. Practice of Medicine: C. Kenny, 1st; W. R. P. Jones, 2nd. Physiology: T. Cashel, 1st; J. F. Russell, 2nd. Chemistry: J. Clancy, 1st; J. F. Russell, 2nd. Midwifery: D. W. Whitfield, 1st; A. G. Beacom, 2nd.

THE new infirmary in course of erection on th Castle House Estate at Homerton for the Hackney Union and designed for the accommodation of 150 pauper patients is to be opened on May 24th next.

THE SERVICES.

ADMIRALTY.—Deputy Inspector-General of Hospitals and Fleets John Bernard to be Inspector-General of Hospitals and Fleets in Her Majesty's Fleet, with seniority of the 1st instant. Fleet-Surgeon Timotheus John Haran to be Deputy Inspector-General of Hospitals and Fleets in Her Majesty's Fleet, with seniority of the 1st instant.

The following appointments have been made: Dep. Inspect.-General J. T. U. Bremner, M.D., to the Chatham Division of Royal Marines, vice Bernard; Deputy Inspector-General G. Mason, M.D., to Bermuda Hospital, vice Bremner; Fleet-Surgeon F. A. Brice to the *Britannia*, additional, for cadets' sick quarters; Fleet-Surgeon G. Jackson to the *President*, additional, for recruiting quarters; Fleet-Surgeon A. B. Messer, M.D., to the *Northampton*, vice Haran; Fleet-Surgeon W. Edney to Plymouth Hospital, vice Messer; Staff-Surgeon R. Hay to the *Duncan*, vice Brice; Fleet-Surgeon Henry Hadlow to the *President*, additional; Fleet-Surgeon James C. Eastcott to the *Revenge*, vice Hamilton, retired; Staff-Surgeon Mark A. Harte to the *Impregnable*, vice Hadlow; Staff-Surgeon Matthew Trevan to the *Britannia*, vice Telfer, retired; Surgeon Joseph Crowley, M.D., to the *Impregnable*, additional, for service in the *Nautilus*; Surgeon William J. Christie, M.B., to the *Impregnable*, additional, for service in the *Pilot*; Surgeon John J. Dinnis, M.D., to the *Implacable*, additional, for service in the *Liberty*; and Surgeon George F. Wales to the *Ganges*, additional, for service in the *Sealark*; Surgeon G. W. Low to the *London*, vice Boland; and Surgeon C. E. Godding to the Chatham Division of Royal Marines, vice Drew.

[In the list of retirements from the service published in THE LANCET of March 19th, page 478, Surgeon-Major James Atkinson West Spence is erroneously described as "surgeon."]

SUPREME COURT OF JUDICATURE.

COURT OF APPEAL—APRIL 12TH.

(*Sittings at Westminster, before* LORDS JUSTICES BRAMWELL, BAGGALLAY, *and* LUSH.)

EATON *v.* BASKER.

THIS was an action by a medical man to recover fees for attendance upon a contract made in the following circumstances:—In June, 1878, an outbreak of scarlet fever occurred in Grantham and the neighbourhood, and a committee was appointed under section 200 of the Public Health Act, 1875, by three urban sanitary authorities, to exercise the powers conferred by section 131 of the Act, enabling the authorities to provide hospitals or temporary places for the reception of the sick. The committee erected tents for the reception of the sick, and directed Mr. Ashby, the medical officer of the sanitary authorities, to apply to the plaintiff to attend the patients. The plaintiff agreed to do so at the rate of 5*s.* 3*d.* a day per tent, and his charge eventually amounted to £97 7*s.* 9*d.* The amount not being paid, the plaintiff brought this action to recover it from the members of the committee and the Corporation of Grantham, in whom the powers of the three urban sanitary authorities had become vested. At the trial, before Mr. Justice Stephen, the jury were discharged, and the learned Judge held that the committee were not liable collectively, because they were forbidden to contract by section 200 of the Public Health Act, 1875, and were not liable individually because the contract was not with the members of the committee personally; and that since eventually more than £50 became due it was a "contract whereof the value or amount exceeded £50" within section 174 of the Act, and ought to have been under seal; and that, not being under seal, no action lay on it against the urban authority, though they had had all the benefit of it. Judgment having been entered for the defendants, the plaintiff appealed.

Mr. Finlay argued for the plaintiff; Mr. Lawrance, Q.C., and Mr. Dugdale for the defendants.

Their Lordships were of opinion that the contract entered into between the parties was not at the time of making it known to exceed the amount or value of £50, and therefore did not come within section 174 of the Public Health Act, 1875. The judgment of Mr. Justice Stephen would therefore be reversed as against the corporation, but as regards the committee there could be no case against them, and the judgment in their favour would be sustained.

Correspondence.

"Audi alteram partem."

THE MEDICAL CONSULTATIONS IN THE CASE OF LORD BEACONSFIELD.

To the Editor of THE LANCET.

SIR,—I have to request you will do me the favour to republish in your columns the accompanying letter. I could have wished to have made some further remarks upon it, but I must forbear; silence becomes the chamber of death. When, in the course of time, the painful feelings of to-day have passed, something may remain to be said.

In the meantime, I am, Sir, your obedient servant,

WILLIAM W. GULL.

Brook-street, Grosvenor-square, W., April 19th, 1881.

"To the Editor of the 'Standard.'

"SIR,—As, in the *Standard* of to-day, you express, as from a public point of view, some censure on Sir William Jenner for not complying with Dr. Kidd's request to meet him in consultation, will you afford me space to say that I desire to bear my part in that censure, whatever it may be?

"Sir William Jenner, as a friend and colleague, conferred with me before answering Dr. Kidd's note, and I entirely concurred with him in his reply, which was to the effect that, though ready to give his services in so anxious and important a case, he could not, consistently with his duty to the patient, co-operate with one who, according to his own statement, has a double set of convictions in the treatment of disease. For, whatever other objections might be raised as to etiquette and the like, it is certain that the welfare of a patient is endangered when there is a tendency to compromise. I am, Sir, your obedient servant,

"74, Brook-street, April 15th." WILLIAM W. GULL.

*** We gladly reproduce the letter addressed to our lay contemporary. It is a timely expression of opinion on the course taken by Sir William Jenner, which the medical profession cannot fail to appreciate. Sir William Jenner's action has been in the strictest accord with the views of the great body of his brethren; and it is pleasant to know that Sir William Gull is in sympathy with his colleague in respect to a line of conduct which has commended itself to the judgment of the profession, and which public opinion will hereafter not less warmly approve. For the moment our comments on the subject, in connexion with this particular case, are necessarily suspended; but later on, the matter must be reverted to on the highest public grounds.—ED. L.

THE MENTAL ELEMENT IN THE ETIOLOGY OF GOUT.

To the Editor of THE LANCET.

SIR,—Attention has recently been directed in your columns, and elsewhere, to the mental phase of treatment in cases of gout. Will you allow me to submit for the consideration—or, perhaps, I ought to say the recollection—of the profession the fact that mental conditions and forces play a conspicuous part in the causation of that disease. I cannot ask the necessary space to adduce demonstrative evidence, or even arguments, in support of this proposition, so I will content myself with a series of dogmatic assertions on the subject. If they are not held to be convincing, they may, at least, prove suggestive.

The morbid state in gout is characterised, if not caused, by the accumulation of uric acid in the blood. It disappears from the urine and is found in the blood; and *pari passu* the normal conversion of uric acid into urea is either arrested or diminished.

It is not necessary to show that the injection of uric acid into the veins of an animal will produce gout, just as it is not necessary to prove that diabetes can be induced by the introduction of sugar into the circulation. There is a special centre in the floor of the fourth ventricle which either excites to the formation of sugar or promotes its destruction—we do not know which, though Dr. Pavy has, as it seems to me, thrown new and true light on this subject in his singularly lucid lectures (THE LANCET, March 30th, 1878); and there is probably also a centre which determines the formation or the destruction of uric acid. These centres may be abnormally active or inactive in the respective maladies, so that they either produce too much of the several materials or do not destroy them with due speed. In any case, *it is the morbid state of the centres which constitutes the disease.*

The persons who suffer most severely from gout are those who either inherit or have acquired a considerable faculty for exertion—or, in other words, great potential energy—and the period at which they begin to suffer from the affection is usually that at which they cease to consume or pass off this energy by transforming it into kinetic force in work. Cases in which gout troubles its victim early in life are nearly always instances of a particularly strong inheritance, or of a complete change in the outlet of force. For example, a youth may inherit gout from his maternal or paternal grandfather, or great-grandfather—generally through the maternal line—and suffer early in life, because he is unable to take as much exercise as will consume or work off all the uric acid he generates; or he may be incapacitated for this chemico-physiological function by having adopted a habit of life which is at too great variance from the habit of his ancestors. Thus, perhaps, they have worked with their muscles, and he works with his brain. It is, however, commonly in adult life that the gouty diathesis begins to develop itself, and the appearance of marked symptoms is generally synchronous with the cessation of accustomed forms of individual work, whether intellectual or muscular. The man-of-muscle abandons his robust life, and the man-of-mind desists from or diminishes his cerebral exercise.

There is a perpetual effort in the gouty constitution to get rid of the uric acid. When it cannot be readily transformed into urea and passed away in the urine, or worked off by the combustive processes of a local inflammation—in some part where the venous circulation is slow, or the currents are embarrassed and the flow of blood towards the heart is retarded, as explained in Mr. Gay's admirable paper on the "Anatomy of Gout," THE LANCET, May 19th, 1877,—there is a perpetual tendency to lung-disturbance, and probably not only gouty bronchitis or catarrh, as shown by Sir Henry Holland in his Medical Notes, but gouty congestion of the lung, and a specific form of pneumonia is a very common consequence. It is precisely what we should expect that blood charged with uric acid would, in default of other ways of relief, set up irritation in the organ through which its organic elements receive their oxygen and get rid of their carbonic acid. These pulmonary affections of the gouty subject occur chiefly in cases in which the diathesis is either subject to the repressive influence of atavism, or the vitality of the body, as a whole, is of low type or depressed by circumstances.

As a rule, the most active organ at the period of life and under the conditions described, when the gouty symptoms occur, is that upon which the stress of the malady falls. Many cases of pain, disturbance, and disease are due to blood charged with uric acid circulating languidly, or, which amounts to the same thing, in relatively large quantities through the vessels of the cerebrum. Special paralyses and convulsions are caused by the uric acid poison—if I may call it so—acting on the nerve-centres. Numberless cases of hæmorrhoidal affection, and prolapse of the rectum, are occasioned by the irritation arising from this cause—namely, the accumulation of uric acid in the blood; and it may even produce a local urethritis resembling gonorrhœa, while prostatic inflammation and disease are in, perhaps, a large proportion of instances due to the same mischievous agency. In short, there is scarcely a malady of mind or body which may not have its origin in gout. The colchicum-test, as it used to be called, will often lead to the recognition of latent gout as a source of disease or discomfort ranging from diarrhœa to diplopia, from sleeplessness to eczema.

The reader will ask what has all this to do with mental causes or influences? Simply this, that in every case it is the equilibration of energy and force, of power and action, which is at fault. Either there is a relative excess of potential energy or a deficiency of kinetic force. Under normal conditions muscular action is followed by an increase of urea in the urine. This is commonly, and doubtless rightly, held to be the result of the decomposition of effete muscular tissue; but the *will*, or mental purpose, to perform muscular exercise *without* action may set up a nervous process which leads to the formation of uric acid in the blood, just as the thought of food will stimulate the salivary, and probably also the gastric and intestinal, glands to pour out their proper secretions. The whole body, with every constituent system, is energised by the same force that sets the brain in action, and produces thought; and every chemico-vital process, not excepting that of the formation of uric acid, is originated by the mind acting consciously or unconsciously, voluntarily or automatically. When the mind acts, so to say, without the body, the impulses are unsatisfied—as in nightmare—and there is no outlet for the products of this action, so that they have a tendency to accumulate in the blood. Myosin accumulates in the muscular tissue, and produces catalepsy, when, in the so-called "hysterical" state, the morbid mental condition inhibits action without arresting the impulse to act.

If I am right, the treatment of gout under all its forms and varieties of actual or abortive development should be in the first place and in the main *mental*. The gouty constitution requires to be treated for the reduction or diversion of its occult mental and nervous energies, not less than for the relief of their expressed physical indications. In short, suppressed or undeveloped gout is like the subterranean operation of volcanic forces, the attack being the earthquake or eruption, with an outpouring of lava. If we are to deal with the *cause* of the disease we must equilibrate the mental energy with the overtly organic or animal forces at work in the system. It is seldom enough to reduce the nitrogenous elements of the food, or to enjoin such exercise as may seem likely to lead to the consumption of the supplies assimilated. It is necessary to command those mental impulses which set up the processes that make life a round of continuous activities mutually destructive unless correlated and controlled. The inheritor or self-producer of mental and nervous energy which ought to find its natural expression in action, either cerebral or muscular, will be gouty if that expression is prevented while the mental motor impulse is not itself inhibited. Gout is the nightmare of an organism constitutionally bent on action, and automatically performing the collateral and contingent chemico-vital processes normally attendant on action, while the action itself is omitted or restrained. The remedy must be sought in grappling with the motive energy, rather than in striving to obviate the train of morbid consequences to which its repression gives rise. Or if this be impossible, as will often happen, a way of working off the products of volition or subconscious energy must be found.

I am, Sir, yours, &c.,

Welbeck-street, W. J. MORTIMER GRANVILLE.

CASES OF SUDDEN OBSTRUCTION OF THE ŒSOPHAGUS.

To the Editor of THE LANCET.

SIR,—The case related by Mr. Thornton of cancer of the œsophagus, of which the first symptom was a *sudden* obstruction to the passage of food, is so important in relation to diagnosis that it may be well to draw attention to the accounts of two similar cases in order to show that, although the occurrence is very uncommon, it must nevertheless be accepted as one of the irregular modes of onset of the symptoms of this disease.

The first case is recorded in the Pathological Transactions for 1859 (vol. x., p. 165), by Dr. Baly. The patient, a gentleman fifty-six years old, while at dinner felt that the solid food he had swallowed lodged opposite the lower part of the chest, and he was obliged to leave the table and reject it. At the end of a week the same thing happened again, and was relieved in the same fashion. From that time it frequently occurred, and five or six months later the patient died from a tolerably extensive epithelioma two inches above the cardiac orifice of the œsophagus.

The second case is related by Dr. Traube in the *Archiv der Heilkunde* (Bd. xvi., S. 282). The patient, also a man of fifty-six, felt a piece of hard beef stick in the

œsophagus one day during the month of October, 1873. From this time he experienced great difficulty in swallowing, and in May, 1874, died from widespread epithelial ulceration of the middle portion of the œsophagus.

In neither of these cases was the obstruction so complete after the sudden onset as in Mr. Thornton's case. Possibly the nervousness of Major —— rendered his symptoms more severe. I would suggest, as the most probable solution of the first case, that of temporary obstruction of the œsophagus in a lady, that the piece of meat which lodged in the œsophagus was still there when the bougies were passed, and was the immediate cause of the obstruction of the right side of the tube. I remain, Sir, yours obediently,

HENRY T. BUTLIN.

Queen Anne-street, W., April 16th, 1881.

THE CHLOROTIC MURMUR.

To the Editor of THE LANCET.

SIR,—I did endeavour "to use the utmost care not to misinterpret" Dr. Balfour's views. My statement, for it was not a criticism, to which he has taken exception, referred solely to the basic cardiac murmurs of chlorosis, as the context distinctly shows. I had taken it for granted that a murmur heard over the præcordia was *endocardial*, and in discussing the points for and against its being organic or functional, I say "the so-called functional murmurs are always systolic, and are either aortic pulmonary or mitral;" adding in a foot-note, "Naunyn, George Balfour, and others deny that the inorganic murmurs of chlorosis are ever arterial, and say that they are due to mitral regurgitation," *meaning by the term arterial aortic and pulmonary basic murmurs.* After again carefully reading Dr. Balfour's Chapter vi., and referring to the paragraphs quoted in my letter of Feb. 19th, I still think that my conclusion was *logically* correct. I also fail to see that Dr. Balfour anywhere indicates that "the *ultimate result* logically and pathologically must be a systolic aortic murmur."

I differ from Dr. Balfour in thinking the opinions of Hayden and Fothergill beside the mark; on the contrary, they seem to me forcible arguments against his explanation of the reduplicated second sound. I am aware that Ceradini states that the "systolic closure of the valves," as he terms it, is attended by the production of sound; but I understand that this point is difficult to prove and is not accepted as established by physiologists. If this systolic closure is noiseless, Dr. Balfour's explanation cannot hold. But granting, for the moment, that the "systolic closure" is attended by sound, I am still disposed to doubt the correctness of Dr. Balfour's view—viz., that the separation between the systolic and diastolic closure of the segments of the pulmonary valve, caused by the increase of the arterial blood pressure within the pulmonary circuit, is the only rational explanation of a reduplicated sound.

In the normal condition of the blood tension the diastolic closure of the valve, which results from the elastic recoil of the vessel, follows so immediately after the systolic closure that the resulting sound (the normal second sound) is single. Is there any reason for supposing that where the blood tension is increased the "diastolic closure"—i.e., the recoil of the vessel—will be postponed? Should we not rather expect that, if anything, it would be anticipated?

With all respect, then, to Dr. Balfour's great authority, I am disposed to think that the view which I adopted in my lecture is a more probable explanation than the one which he has advanced.—I am, Sir, your obedient servant,

Edinburgh, April 16th, 1881. BYROM BRAMWELL.

*** This discussion must now close.—ED. L.

PROVIDENT DISPENSARIES IN MANCHESTER AND SALFORD.

To the Editor of THE LANCET.

SIR,—In THE LANCET of March 26th you refer to Provident Dispensaries as institutions of a public character with which several medical men are connected, and to which the working classes subscribe. It is time that publicity was given to what they really are, and to the manner in which they are conducted here.

About five years ago, in conjunction with five others, I was surgeon to a provident dispensary. It was quite an exception when the rules with regard to the admission of members were carried out, and when the members of the medical staff complained they were told that if these rules were enforced it would make the dispensary unpopular. THE LANCET is mistaken in imagining that these places are worked by any surgeons in the district who like to join. That was the case formerly, but not now. A doctor is engaged by the committee. He takes a private house in a district remote from the dispensary, so that his future private practice may not be injured. Handbills publishing his name and *private* address are circulated in the neighbourhood, and by means of a collector the private patients of the other doctors are canvassed and pressed to become members. As a matter of fact I can point to numerous instances of shopkeepers who are being attended at a provident dispensary. But what can be expected of an Association the President of which dared to state at a public meeting held in support of these places that doctors in Manchester kept black lists, and were frequently the means of bringing persons to the workhouse? *Theoretically* a philanthropical and generous scheme, at its commencement equally generously supported by the general practitioners; *practically* a scheme which has deliberately broken faith on every point with the medical men, and which is worked entirely on the principle of success, no matter at what cost of honourable and straightforward professional dealing.—I am, Sir, yours faithfully,

Broughton, Salford, April 13th, 1881. G. HOLTBY PINDER.

THE SIGNIFICANCE OF DESQUAMATION.

To the Editor of THE LANCET.

SIR,—I have noticed lately a very important discussion in your columns on the subject of desquamation after scarlet fever. My view of that subject is that the variation in the process itself is some excuse for the variety of opinion as to its duration which obtains in the profession. May I draw your attention to another cause of desquamation, as it seems to me—the administration or use of certain drugs, such as turpentine, perhaps copaiba, &c.? It would be extremely interesting to learn the experience of your numerous readers in regard to this point. I lately attended a gentleman in a large hotel for somewhat persistent hæmaturia, to which he had been liable for about twenty years. Gallic acid having failed, I gave oil of turpentine. Marked desquamation in large flakes of the skin of the hands followed, which suggested a scarlatinous element so strongly that he was detained on account of it, and disinfecting precautions were taken. The question was very important, involving questions of detention, and expense, and sanitary law. There was absolutely no other sign of scarlatina, which was indeed almost excluded by the history of the case, a very slow pulse, normal temperature, &c. I have seen two or three other cases more or less similar, with the particulars of which I need not trouble you, but we have a good deal to learn yet about desquamation. Your obedient servant,

March, 1881. VIGILANS.

"MISSED LABOUR."

To the Editor of THE LANCET.

SIR,—Reading the discussion on so-called "missed labour" at the meeting of the Obstetrical Society, I was reminded of a case I had a few years ago. A woman, aged about forty-five years, who had had six or seven children, consulted me as to her health. She said she was six months pregnant, had quickened six weeks ago, and had felt the movements of the child up to a few days ago, when they ceased, and she began to feel "out of sorts," complained of coldness and weight at the bottom of the body, loss of appetite, and general malaise. The abdomen appeared as large as that of a woman six or seven months advanced in pregnancy. She looked sallow, almost jaundiced. A short course of medicine soon removed these ailments, and she seemed quite well. I did not see her again until about two months after, when she said she was very well, and looked so. The abdomen was so much less that any enlargement could scarcely be seen, and she expressed a doubt as to having been pregnant at all, but thought it was "the change of life." She still felt a little weight at the bottom of her

body. I told her I was sure she was pregnant, and would soon part with a dead child. However, time passed on, the natural period of gestation ended, and nothing came of it, and it was not until the lapse of *eleven months* from the beginning of pregnancy, or *five months* from the time when I first saw her, that she sent a hasty message for me, saying that, as she "was walking across the bedroom floor, her inside began to come out." I found her laying on the floor, half fainting, the unbroken bag of membranes protruding, which I removed, and liberated therefrom a six months' fœtus, withered and mummified. The placenta came away, of course, still attached to the membranes. Scarcely any blood was lost, and she quickly recovered. As such cases are not very common, I thought it might be worth while to record this.—I am, Sir, yours faithfully,

W. M. BURMAN, L.R.C.P. Lond., &c.

Wath, Rotherham, April 11th, 1881.

ABERDEEN.

(*From our own Correspondent.*)

THE outbreak of milk poisoning referred to in my last communication is now subsiding, no fresh families having been attacked last week, and very few new cases having occurred in families already affected. The stoppage of the supply of milk has effectually checked the spread of the disease,—an additional proof, if any had been required, that the milk was the cause of the outbreak. Careful inquiries made by the officials of the sanitary staff have shown that out of 110 families supplied from that dairy, 90, comprising probably about 300 individuals, have been attacked. As formerly mentioned, the sudden and severe onset of fever, and the great prostration which followed its subsidence, were the most marked of the constitutional symptoms; and it has turned out that this prostration has been the source of danger. Three deaths have occurred, all of old people—over seventy—in whom the prostration was never rallied from. Each of these fatal cases lasted from eight to nine days. Several other cases looked for a time very serious; but all seem now to be progressing towards convalescence. The local symptoms, as formerly mentioned, consisted in enlargement with tenderness of the lymphatic glands of the neck, first of those close to the angle of the jaw, and afterwards (if the disease continued) of those farther down in the upper triangle of the neck, and in some cases also of those in the lower triangle. The thoracic and abdominal glands were unaffected. Each fresh invasion of glands was marked by a sharp paroxysm of fever, lasting from twelve or twenty-four to forty-eight hours; thus giving rise to "relapses" separated by intervals of one or more days. The most common course has been two attacks, corresponding to the invasion of the two sides of the neck, with one two-days' interval between them; but in many cases the febrile paroxysms have recurred repeatedly, every second or third day, each attack accompanied by and corresponding to, the swelling and tenderness of a gland or glands in the neck further down than those previously affected. The swelling of the glands slowly subsided, and final convalescence was marked by the complete disappearance of the glandular swellings. The tissues around the glands did not seem to be affected, and in no case (as far as known) has suppuration occurred. A large proportion of those attacked were young persons, who seemed to throw off the disease comparatively easily; but middle-aged or elderly people when attacked, appeared to suffer more heavily. In one of the fatal cases a post-mortem examination was obtained; but, having been delayed until decomposition had begun, and having had of necessity to be somewhat hurriedly made, the result was not entirely satisfactory. With the exception of chronic affection of the kidney of old standing, insufficient to account for death, but sufficient to explain why the system could not stand the prostration following such a shock, nothing definite was discovered. The tonsils, lymphatic glands, and blood were reserved for microscopic examination; but as the tenderness and swelling had subsided before death, and as in fact death seemed to be due more to the prostration following disease than to the disease itself, it is hardly to be expected that microscopic examination will throw much light on the matter. The abdominal lymphatic system and the spleen were entirely unaffected.

In my last communication I mentioned that the disease had broken out suddenly on the 1st of April. It appears, however, on further inquiry, that for one or two weeks at least prior to that date there had been stray cases of this affection, all in families receiving milk from the same source; but which, from the novelty of the disease and the short period of its continuance, had at the time been overlooked. The full lists of cases and dates have not yet been received, but from those obtained it appears that the outbreak extended from at least March 25th to April 11th. Pretty extensive inquiries made in various places in Scotland have failed to show the existence of the disease elsewhere.

Although it is impossible now to reproduce the exact conditions which existed at the commencement of the outbreak, and also impossible satisfactorily to examine or experiment with the milk, yet, from what has been learned, it appears that the morning's milk was the worst and the evening's the best; that skimmed milk had less effect than sweet milk or cream; and that boiled milk had still less effect.

As to the nature of the disease, the most reasonable view seems to be that it is the result of an organic poison, of a nature similar to that which produces typhoid fever, which, entering the system by the mouth or fauces, spends its local action on the neighbouring lymphatics. As there is nothing about the cows or their surroundings to account for the outbreak, the condition of the water-supply seems the most natural source to look to, and, as I mentioned in my last communication, the water used in and about the dairy has been shown to be highly contaminated with organic matter. The following is the analysis:—

	Grs. per gallon.	Parts per 1,000,000
Total solids, containing	4·7	67·143
Chlorine	—	10·143
Free ammonia	—	0·029
Albuminoid ammonia	—	0·212
Nitric anhydride	—	3·857
Sulphate of lime, carbonaceous matter, &c.	—	52·902

The analyst adds this note:—"The contamination which the water has suffered in this case takes it from the 'excellent' into the 'dangerous' class. While the harmless ingredients remain at nearly the same point the injurious ingredients have been trebled."

With water of such a character as this used exclusively and continuously in the dairy, is it any matter of surprise that an outbreak should result? Is it not rather a matter for congratulation that no worse results have happened?—and is it not one other added to the many warnings we are constantly receiving that while pure water and pure milk are amongst the most easily obtained necessaries of life, being furnished by nature in a condition capable of sustaining health, yet by our own perversity and carelessness we can only too readily convert them into deadly poisons?

GLASGOW.

(*From our own Correspondent.*)

THE struggle which has been going on for the medical officership to the Scottish Provident Institution has resulted in the appointment of Dr. G. T. Beatson to the office. I understand that the canvas for this place was very keen, and that the disappointment now felt in some quarters is correspondingly great; few, however, will be disposed to grudge Dr. Beatson his success.

Dr. G. P. Tennent has obtained the new physicianship to the Western Infirmary.

Dr. H. C. Cameron leaves the Royal Infirmary, having been appointed surgeon to the Western. In thus having an outsider passed over their heads the dispensary surgeons feel somewhat disheartened, and fancy they have a grievance against the managers of the institution; having borne the drudgery of dispensary work, they not unnaturally think themselves entitled to the ward appointments. The managers, however, have doubtless been actuated by a desire to do the best they could for the great charity under their care. Dr. Cameron has resigned his appointment as examiner in surgery at the University. The withdrawal of Dr. Cameron from the Royal Infirmary renders vacant the post of surgeon to the infirmary and the lectureship in surgery in the medical school attached to the institution.

For the former post Mr. H. E. Clark and Dr. D. Foulis are mentioned as the most prominent candidates; both are excellent surgeons, and the interests of the Royal would not suffer were either appointed. Dr. W. McEwen is spoken of as the most likely candidate for the lectureship.

In the burgh of Hillhead, adjoining Glasgow, one of Ransome's patent disinfecting stoves has been fitted up for the use of the ratepayers. With the exception of one in Greenock, this is the only apparatus of the kind in use in Scotland.

At the annual general meeting of the subscribers to the Glasgow Dispensary for Skin Diseases, it was stated that during the past year 1192 new cases had been treated, making upwards of 23,000 since the opening of the dispensary. Eighty-four of the more important cases had been sent to the ward for cutaneous affections in the Western Infirmary.

The happy manner in which the proposed compulsory reporting of infectious diseases would work in Glasgow was well illustrated a few days ago. Dr. Russell thus refers to the case in his last report to the Town Council:—"During the fortnight we have registered the first case of genuine small-pox which we have seen in Glasgow for seven months. The patient was a seaman who had sailed between Calcutta and London in a ship in which small-pox appeared during the voyage. He left the vessel at London and came down to his home in Glasgow. Feeling ill on his arrival, a doctor was at once summoned, the disease detected, one of those blank certificates which I recently submitted to the committee filled up and posted, and the patient removed to hospital before he had been twenty-four hours in the city. I do not anticipate that any secondary cases will arise from this."

Obituary.

WILLIAM HARDWICKE, M.R.C.S. ENG.,

CORONER FOR CENTRAL MIDDLESEX.

AFTER a tenure of upwards of six years of the office of Coroner for Central Middlesex, Dr. Hardwicke died suddenly on the 14th inst. Whilst engaged in holding a number of inquests at Islington Dr. Hardwicke was seized with symptoms of cerebral hæmorrhage, and struggled sufficiently against them to complete the duties in which he was occupied. When conveyed to his house at Paddington he was seen by Dr. Danford Thomas and Dr. Westmacott, and the aid of Dr. Buzzard was soon after obtained. He was then in a comatose condition, with complete hemiplegia of the left side, evidently dependent upon cerebral hæmorrhage. The symptoms of apoplexy increased, and he died at 2.30 A.M. on the following day. Dr. Hardwicke was sixty-four years of age. Almost up to the time of his seizure he had enjoyed good health, though there had been a slight warning a few weeks previously in the shape of numbness of the left hand. There was a family proclivity to apoplexy, his mother and brother having succumbed to the same disease. It is curious that Dr. Hardwicke had more than once expressed the opinion that he should die, like his brother, the well-known medical publisher, of apoplexy. Dr. Hardwicke's loss will be severely felt.

ROTUNDO LYING-IN HOSPITAL, DUBLIN. — The Secretary of the Public Health Committee of the Corporation has recently drawn attention to the sewerage of this hospital, and has pointed out that the sewer into which the general sewage of the hospital is conducted is at all times, but more especially during high water, when its outlet is closed, charged with sewage gas, from which it can only escape through an imperfectly closed door which partially secures the opening between it and the drain which conducts the sewage from the hospital. The head of the sewer is about thirty feet from one of the principal doorways of the basement of the hospital, towards which the foul exhalations from it find their way through the door referred to. The breadth of the floor of this sewer is so great as to render its flushing by water impossible. Mr. Boyle suggests that a twelve inch pipe should be substituted for the present outfall, and that the existing sewer be filled up throughout its entire length.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND. — The following gentlemen having passed the required examination for the diploma were duly admitted Members of the College at a meeting of the Court of Examiners on Tuesday last:—

Awdry, Walter Robert, Kidderminster.
Beyer, Henry Gustav, M.D. New York, Washington, U.S.
Black, William Gladholm, South Shields.
Cox, James, M.D. Melbourne, Melbourne, Australia.
Eames, William, L.R.C.P. Edin., St. John's, S.E.
Holberton, Henry Nelson, L.R.C.P. Lond., Hampton.
Howe, John Ernest, B.A. Cantab., Knowle.
Jennings, —, L.S.A., Malmesbury.
Kaeser, Jean, M.D. Bâle, Avenue-road.
Kelly, Thomas, M.D. McGill University, Ontario.
Oswald, Robert J. W., L.R.C.P. Edin., Kennington-road.
Palmar, Edward Talbot, L.S.A., Southsea.
Platt, Walter Brewster, M.D. Harvard Univ., Boston, U.S.
Pomfret, Henry Waytes, L.S.A., Hollingworth.
Potter, Edward Furniss, Knaresborough.
Shelswell, Oscar Berridge, L.R.C.P. Lond., Sibford, Oxon.
Stokes, Leonard, Lee, Kent.
Thornson, Wilfred Burrell, Ledbury-road.
Trotter, Walter Octavius, Stockton-on-Tees.
Walsh, J. H. Tull, Cheltenham.
Wells, Alfred Ernest, Brixton.
West, John Arthur, Bickley-park.
Wight, Ernest Octavius, Clarendon-road.

The following were admitted Members of the College on Wednesday last:—

Branthwaite, Robert Welsh, L.S.A., Willesden.
Browne, Oswald Auchinleck, M.A. Cantab., Lympstone, Devon.
Cory, William Howard, Bath.
Downing, Charles, Falmouth.
Hallowes, Herbert Chaworth, Chesterfield.
Hatton, Edwin Fullarton, M.D. Toronto, Peterborough, Canada.
Knowling, Ernest Mansford, B.A. Cantab., Wellington.
Luscombe, Thomas B., L.S.A., Hampton.
Maddison, William Thomas, Cardiff.
Makeham, H. W. Payne, L.S.A., Chelmsford.
Osborne, H. Rochester, L.S.A., St. Ives, Hunts.
Pearce, Walter, L.R.C.P. Lond., Maidenhead.
Row, Frederick Everard, Devonport.
Shaw, Frank Herbert, Hastings.
Stephens, Guy Neville, Lincoln.
Sturridge, Peter Frederick, Jamaica.
White, Percy Harry, M.B. Edin., Norwich.

The following gentlemen passed the Primary Examination in Anatomy and Physiology at meetings of the Board of Examiners on the 13th and 14th inst.:—

Alfred E. Hind, Thos. H. White, Charles B. Leaver, Samuel Stephens, James N. Vogan, and Albert Grosswell, St. Bartholomew's Hospital; Charles W. Biden, Charles Josling, and John J. Rowland, Charing-cross Hospital; Arthur W. Clark and William Watson, Guy's Hospital; William W. Robson, George W. Ford, Thomas Johnston, Walter B. Tomson, and Goolden Perrin, St. Thomas's Hospital; Charles T. Street, Charles J. Weller, and Clement S. Robinson, St. George's Hospital; Harry Littlewood, Thomas Wilson, and Frederick A. Dixey, University College; Thomas Wholey, London Hospital; Jas. R. Roberts, Middlesex Hospital; Albert W. Mitchell, Trevor Webster, Thomas Short, and Clifton Sturt, King's College; Charles D. Green, John L. C. Cox, Duncan B. Irving, and Frederick Bryan, St. Thomas's Hospital; Robert Caldwell and Charles S. Humphreys, Westminster Hospital; John Powell, Arthur H. Mason, and W. H. Brown, University College; Frank Percival, St. George's Hospital; Francis B. W. Phillips and William C. Blight, Guy's Hospital.

Of the 214 candidates examined during the last fortnight, 37 failed to satisfy the Board of Examiners, and were referred for three and 2 candidates for six months' further anatomical and physiological study.

[In the list published last week of gentlemen who passed the Primary Examination, the name "Charles H. Hall" should have been C. H. Hale.]

UNIVERSITY OF EDINBURGH. — The following gentlemen have passed the First Professional Examination for Medical Degrees:—

G. R. Ayshford, E. H. Bannister, John Barrie, G. B. Batten, Alexander Bisset, Ernest Black, J. A. Blair, T. M. Blumenreich, J. N. F. J. Boissière, H. R. Bramwell, G. T. Broatch, R. N. Buist, A. J. A. Campbell, J. G. Cassels, James M. Caw, R. L. Clark, John Cunninghame, A. E. Curtis, Richard Davidson, William Davies, William O. Dow, William Dutton, T. E. Dyson, H. S. Fairbank, W. C. Faulkner, J. E. A. Ferguson, Francisco Fernandes, W. H. Francis, Arthur Fuller, W. G. Galletly, F. W. A. Godfrey, G. B. Goodall, J. A. Haggart, F. W. G. Hall, J. H. Helm, John Henderson, G. V. Hewland, T. M. Hodgson, John Hoyle, John Hutson, E. M. Inglis, R. W. Jamie, J. S. Jones, D. K. Keith, Jas. Kerr, F. H. Knaggs, James Lamrock, A. E. G. Langschimdt, J. A. Lestrade, H. S. Lloyd, J. S. M'Cracken, George Mackay, J. S. M'Laren, Andrew M'Lennan, Jas. M'Leod, Jas. Macpherson, Adam Macvie, Alex. Menzies, W. J. van der Merwe, Gustavo Michael, George Miller, R. S. Miller, David Milligan, S. C. Mitchell, G. P. Nicolet, Joseph Nielson, John Noble, F. B. O'Flaherty, A. M. Paterson, C. E. Paterson, R. J. Paton, A. W. G. Price, O. R. Pughe-Owen

A. S. Purves, Wm. Richards, W. G. Roberts, J. B. Robinson, Chisolm Ross, A. J. T. Roux, H. D. Rowan, C. F. D. Shaw, Herbert Shelmerdine, L. G. Smith, S. H. A. Stephenson, W. M. Sturrock, G. P. Taylor, George Thomson, C. G. Thorp, John Tomlinson, S. C. Townsend, C. G. Traill, E. M. Tyrrell, Edmund Vandrey, T. W. E. Waddington, Joseph A. Wake, N. H. Walker, John Walther, E. H. Warner, Algernon Westlake, J. B. Wilkinson, John Williamson, S. H. Wilson, T. N. Wilson, A. J. Wood, George B. Wood, G. A. H. Woodforde, W. S. R. Woodforde, J. W. Wyncoll, Peter Yates, J. H. Zepero.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on April 14th:—

Batterham, John W., Maitland Park Villas.
Luscombe, Thomas Benjamin, Hampton, Middlesex.
Oakley, John Lewis Bagnall, Newland, Gloucester.
Stott, Hugh, West Kensington Park.
Whistler, Charles Watts, Ashburnham, Sussex.
Harvey, Fredk. W., Cromwell House, Gunnersbury.

The following gentlemen also on the same day passed the Primary Professional Examination:—

John Kenaz Goodall, Charing-cross Hospital; Arthur Augustus Lipscombe and Henry Frederick Ilewicz, London Hospital.

COLLEGE OF PHYSICIANS IN IRELAND.—During the April examinations the following obtained the licences in Medicine and Midwifery of the College:—

MEDICINE.—Hope Bridges Adams, Charles Dillon Barrett, John Geo. Cronyn, Patrick Arthur Daly, Charles B. Gaffney, William Gem, Wm. Henry Holden, John Laird, John Vincent Lentaigne, Edward Hayes M'Laughlin, Alice Kyme Marston, Isabella Mears, John O'Halloran, Vincent Adolphe Passanha, Francis John R. Russell, Edith Shove, William John Trotter.

MIDWIFERY.—Hope Bridges Adams, Charles D. Barrett, John George Cronyn, Patrick Arthur Daly, C. Burke Gaffney, W. Henry Holden, John Vincent Lentaigne, Edward Hayes M'Laughlin, Alice Kyme Marston, Isabella Mears, Francis John Roberts Russell, James Quirke, Edith Shove.

The under-mentioned have been admitted Members:—

Wilberforce Arnold; Samuel Browne; Charles Edw. Dwyer, Surgeon, Army Medical Department.

DR. J. H. ALDRIDGE has been placed on the Commission of the Peace for the borough of Southampton.

THE Earl Cadogan has been elected to the Presidency of the Chelsea Hospital for Women, which office had become vacant by the death of the Earl of St. Germans.

AN application has been made by the authorities of the Preston and County of Lancaster Royal Infirmary for a grant towards the endowment to the institution out of the bequest of £200,000, for charitable purposes, by the late Mr. E. R. Harris, late prothonotary of Lancashire.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning, at the latest.*

ATKIN, C., L.R.C.P.I., M.R.C.S.E., has been appointed House-Surgeon to the Liverpool Eye and Ear Infirmary, vice J. Rose, L.R.C.P.I., M.R.C.S.E., resigned.

BAILEY, J. B., M.D., L.R.C.S.Ed., has been appointed Medical Officer for the Sixth District of the Maidstone Union.

BUCHAN, G., M.B., C.M., has been appointed Surgeon to the Ironstone Workers of the Busbie Colliery, belonging to Messrs. James Dunlop and Co., of Clyde Iron Works.

CARTER, R. W. F., L.R.C.P.Ed., L.F.P.S.G., has been appointed Medical Officer for the Workhouse of the Dulverton Union, vice Robinson.

CHADWICK, W. F., M.R.C.S.E., has been appointed Medical Officer for the Second District of the Oldham Union.

DAVIES, B., M.D., F.R.C.S.E., has been reappointed Medical Officer of Health for the Newport Urban Sanitary District.

DICKINSON, W. M., M.B., L.R.C.S.Ed., has been appointed Medical Officer of Health for the Shire of Mount Rouse, Victoria.

DOBBYN, W. A., M.R.C.S.E., L.A.H.D., has been appointed Resident Surgeon to the Beechworth Hospital, vice Mousse, deceased.

DOYLE, C. W., M.B., C.M., has been appointed Medical Officer for the Sixth District of the Norwich Union.

HARRIS, A., M.B., C.M., has been appointed Medical Officer for the Dalston District of the Carlisle Union.

KIERNAN, L., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer for the Harrow District of the Hendon Union.

MALONE, M. J., M.D., F.R.C.S.I., has been appointed Consulting Physician to Barrington's Hospital, Limerick.

MASON, S. B., L.R.C.P., L.F.P.S.G., L.S.A.L., has been appointed Medical Officer and Public Vaccinator to the Pontypool District of the Pontypool Union.

MURRELL, W., M.D., M.R.C.P.L., M.R.C.S.E., has been appointed Lecturer on Materia Medica and Therapeutics at the Westminster Hospital, vice Phillips, resigned.

O'CONNOR, M. R., M.D., M.Ch., has been appointed Visiting Physician to Barrington's Hospital, Limerick.

OGILVIE, L., M.B., C.M., has been appointed Lecturer on Zoology and Comparative Anatomy at the Westminster Hospital, vice Carter Blake, resigned.

PRATT, R., M.R.C.S.E., L.S.A.L., has been appointed Resident Medical Officer to the Royal United Hospital, Bath.

ROW, F., M.D., L.R.C.S.Ed., L.S.A.L., has been appointed Medical Officer for the Clowance St. John District of the Stoke Damerel Parish.

SNOWBALL, W., M.B., B.Ch., L.R.C.S.Ed., has been appointed Honorary Surgeon to the Melbourne Hospital for Diseases of Children.

STOCKER, C. J., L.R.C.P.L., M.R.C.S.E., has been appointed Medical Officer to the Pleshet Industrial Schools, St. George's-in-the-East, vice Levick, deceased.

SUTHERLAND, J. A., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Acting Resident Surgeon at the Melbourne Hospital.

WARREN, W., L.K.Q.C.P.I., L.R.C.S.I., has been appointed Resident Surgeon at the Geelong Hospital, vice Scott, resigned.

WHITE, J. A., M.R.C.S.E., L.S.A.L., of Pendleton, has been appointed Certifying Surgeon under the Factories Act, vice Davies, deceased.

Births, Marriages, and Deaths.

BIRTHS.

CHETWOOD.—On the 15th inst., the wife of William Chetwood M.R.C.S.E., of King-street, Finsbury-square, of a daughter.

COWARD.—On the 9th ult., at Queen-street, Huddersfield, the wife of Frank A. Coward, L.R.C.P.Ed. &c., of a son.

DUKE.—On the 8th inst., at 9, Cornwall-road, Westbourne-park, W., the wife of G. Amos Duke, M.R.C.S.E., of a son.

EVANS.—On the 11th inst., at Fronheulog, Fourcrosses, Festiniog, North Wales, the wife of R. D. Evans, L.R.C.P.Ed., L.R.C.S.Ed., of a son.

FARRINGTON.—On the 15th inst., at The Moat, Penshurst, the wife of W. H. Farrington, M.D. (prematurely), of a son, stillborn.

HOAR.—On the 12th inst., at Maidstone, the wife of Charles E. Hoar, M.D., of a daughter.

MUIRHEAD.—On the 16th ult., at Gellahating, Assam, the wife of William Muir Muirhead, M.D., of a daughter.

PHELPS.—On the 10th inst., at Highbury, the wife of A. M. Phelps, M.A., M.B., of a son.

RIGBY.—On the 2nd inst., at Winckley-square, Preston, the wife of J. A. Rigby, Esq., M.D., of a son.

RUSHBROOK.—On the 15th inst., at Seven Sisters-road, Holloway, the wife of Henry George Rushbrook, L.K.Q.C.P.I. & L.M., of a daughter.

MARRIAGES.

STOTT—GURR.—On the 19th inst., at St. Michael's, Paddington, Hugh Stott, M.R.C.S.E., L.S.A.L., to Ellen, youngest daughter of the late A. J. Gurr, of Shepherd's-bush.

TWEEDY—MACK.—On the 20th inst., at St. Paul's, Canonbury, by the Rev. William McCall, Vicar of St. George's, Tufnell-park, N. (uncle of the bride), George, second son of George Tweedy, of Bishop Auckland, to Rosa Courtney, eldest daughter of Robert Mack, Surgeon, of Canonbury, N. No cards.

WILSON—BALFOUR.—On the 9th inst., at St. John's, Edinburgh, by the Rev. T. J. Nunns, M.A., assisted by the Rev. D. Sandford, LL.D., Robert Morrison Wilson, M.D., of Old Deer, Aberdeenshire, to Charlotte Mary (Sissy), only daughter of the late Charles Anthony Balfour, Lieut. Royal Artillery.

DEATHS.

ALEXANDER.—On the 12th inst., at Eastbourne-terrace, London, Mary Alice, widow of Thomas Alexander, C.B., late Director-General of the Army Medical Department, and eldest sister of T. Heath Haviland, Lieutenant-Governor of Prince Edward Island, Canada.

CHADWICK.—On the 7th inst., at his residence, Butterworth Hall, Milnrow, Lancashire, John Chadwick, M.D., L.R.C.S.Ed., L.S.A.L., aged 63.

CHARSLEY.—On the 17th inst., at Graham's Town, South Africa, W. P. Charsley, M.D., late Principal Civil Medical Officer, Ceylon, only son of the late William Charsley, Esq., of Her Majesty's Exchequer, aged 56. (By telegram.)

HARDWICKE.—On the 15th inst., at Richmond Villa, Paddington, Dr. William Hardwicke, of Holders-hill House, Hendon, Coroner for Central Middlesex, aged 64.

INNES.—At High-street, Forres, N.B., John George Innes, L.R.C.S.Ed.

JARVIS.—On the 3rd inst., at his residence, Lea Side, Harrow, George Harvey Thompson Jarvis, M.R.C.S.E., L.S.A.L., aged 58.

KIRKMAN.—On the 11th inst., at his residence, Courtland-terrace, Kensington, John Moss Kirkman, M.R.C.S.E. &c., late of Ardwick-green, Manchester, aged 69.

PHILP.—On the 2nd inst., at Brighton, Francis Richard Philp, M.D., in his 82nd year.

SHEWAN.—On the 16th inst., at Princes-square, Bayswater, Alexander Shewan, Deputy Inspector-General of Hospitals, Indian Medical Service (Retired List).

STEPHENS.—On the 12th inst., at his residence, Warwick Villa, Abbotsford-road, Redland, Henty Oxley Stephens, M.D., M.R.C.P., aged 75.

WALLER.—On the 14th inst., at Spendhurst, Gipsy-hill, Thomas Waller, M.R.C.S.E., Retired Surgeon-Major, Bombay Medical Service, aged 76.

WAYLEN.—On the 10th inst., at Culver-street, Colchester, Edward Waylen, for twenty-nine years Surgeon to the Essex Rifles Militia.

N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Stewart's Instruments.)

THE LANCET OFFICE, April 21st, 1881.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Dry Bulb	Wet Bulb	Solar Radia in Vacuo	Max. Temp Shade	Min. Temp	Rain-fall.	Remarks at 8.30 A.M.
Apl. 15	29·91	S.W.	52	48	88	63	37	..	Fine
" 16	29·94	S.	49	46	80	60	41	..	Foggy
" 17	30·07	N.E.	48	45	99	62	40	..	Fine
" 18	29·95	E.	57	48	98	66	44	..	Cloudy
" 19	30.03	E.	41	38	54	44	38	..	Overcast
" 20	29·87	N.E.	40	36	63	44	34	..	Cloudy
" 21	29·77	N.	37	34	70	47	28	..	Cloudy

Medical Diary for the ensuing Week.

Monday, April 25.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS. — Operations, 10½ A.M. each day, and at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.; on Tuesday, 9 A.M.

HOSPITAL FOR EPILEPSY AND PARALYSIS, Regent's-park.—5 P.M. Dr. Julius Althaus "On Recent Researches in the Pathology and Treatment of Cerebral Paralysis."

MEDICAL SOCIETY OF LONDON.—8.30 P.M. Dr. R. J. Lee, "On the Special Character of Cutaneous Diseases in Infants and Young Children."—Dr. Allen Sturge will exhibit Two Patients illustrating some interesting points in connexion with Muscular Atrophy.—Dr. Gilbart Smith will exhibit Photographs of the Machines used in the Mechanico-therapeutic Institution of Stockholm.

Tuesday, April 26.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 3 P.M.

ROYAL INSTITUTION.—3 P.M. Professor Dewar, "On Non-Metallic Elements."

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8.30 P.M. Dr. George Thin, "On an Unusual Case of Warty Growths on the Face."—Dr. Champneys' Second Communication "On Artificial Respiration in Stillborn Children; Expansibility of various parts of the Lungs."

Wednesday, April 27.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL. — Operations, 1½ P.M., and on Saturday at the same hour.

ST. THOMAS'S HOSPITAL. — Operations, 1½ P.M., and on Saturday at the same hour.

ST. MARY'S HOSPITAL.—Operations, 1½ P.M.

KING'S COLLEGE HOSPITAL. — Operations, 2 P.M., and on Saturday at 1 P.M.

LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.

GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL. — Operations, 2 P.M., and on Saturday at the same hour.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN. — Operations, 2½ P.M.

Thursday, April 28.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL. — Operations, 2 P.M., and on Friday at the same hour.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M.

NORTH-WEST LONDON HOSPITAL.—Operations, 2½ P.M.

ROYAL INSTITUTION.—3 P.M. Professor Tyndall, "On Magnetism."

Friday, April 29.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 P.M.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

ROYAL INSTITUTION.—3 P.M. Professor Blackie, "On the Language and Literature of the Scottish Highlands."

Saturday, April 30.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

ROYAL INSTITUTION.—3 P.M. Professor H. Morley, "On Scotland's Part in English Literature."

Notes, Short Comments, and Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Local papers containing reports or news-paragraphs should be marked.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

Lectures, original articles, and reports should be written on one side only of the paper.

We cannot prescribe, or recommend practitioners.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

THE VEGETABLE CELL.

AT a late meeting of the Edinburgh Botanical Society, Mr. J. M. Macfarlane read a paper "On the Structure and Division of the Vegetable Cell," in which he stated that he had observed within the nucleolus of the cell a body which he proposed to call the nucleolo-nucleus, and of whose behaviour in the process of cell development he gave a somewhat detailed account. Professor Dickson said that, whereas division of the cell was known to be preceded by division of the nucleus, Mr. Macfarlane carried the matter further back, and showed that division of the nucleus was preceded by division of the nucleolus; and that, again, although perhaps a little additional observation was still required, he believed to be preceded by the division of the nucleolo-nucleus. It might be a question whether the nucleolo-nucleus was the most important factor, or whether it might be subordinate to the nucleolus or the nucleus; but if the matter was as Mr. Macfarlane showed, that all went to show the probability or possibility of this newly-discovered structure proving of very great importance.

Mr. David Edgar Flinn's question had escaped our notice. We certainly think there is no district in which there is more need of a well conducted medical defence association than that of Birmingham, which on former occasions has done good service in the cause of medical reform.

CAUSE OF DEATH?

To the Editor of THE LANCET.

SIR,—Kindly allow me space in the next issue of your valuable journal to submit to the notice of your readers a few notes of the following case of sudden death.

On the 1st of this month, about 9 A.M., I was called to see a schoolboy, fourteen years of age, who had a history of having been suddenly seized at 4 P.M. the previous evening, without any assignable cause, with severe headache, accompanied by sickness and vomiting. Upon my arrival I found the patient lying partially on his face, with his back turned to the light, complaining of intense pain in the head and a feeling of nausea. When asked a question he showed marked signs of irritability and disinclination to be disturbed. His pulse was high and bounding; temperature 103°; tongue dry; scalp hot; his pupils contracted, and there was marked photophobia.

I diagnosed acute encephalitis; prescribed perfect rest and quiet, exclusion of light, and the application of cold cloths to the head; the patient to have milk and water to drink. Ordered a full dose of calomel to be given, and left with a promise to call later on.

At 1 P.M. we were informed that an attack of vomiting followed the administration of the powder which was returned, and that the patient was becoming delirious. A second calomel powder was ordered, and we promised to visit the patient as soon as possible. In a few minutes—twenty-one hours from the first appearance of the symptoms—a messenger came to say the boy was dying. My principal straightway went to see him, and found that the respiration had ceased, his face was purple, and that other signs of asphyxia were present. The pulse was still to be felt at the wrist. Artificial respiration was employed at once, but with no effect, the patient dying in about one minute after his arrival—three minutes from the onset of these last symptoms.

I should be glad if some of your correspondents could suggest to me the immediate cause of death in the above case. Was it due to thrombosis of the pulmonary artery? If so, how was it brought about? Apologising for trespassing on your space,

I am, Sir, yours obediently,

April 18th, 1881 M.R.C.S., &c.

"THE SURGICAL DISEASES OF THE HEAD AND NECK."

THE *Vienna Montags Blätter* states that in M. Edward Albert's work on the above subject, of which the second edition of the first volume has just appeared, there is a passage treating upon narcotics and containing the following anecdote:—When Sir James Simpson proposed the use of chloroform in confinement cases the religious zealots in England got up an agitation against it on the ground of the scriptural curse, "In sorrow thou shalt bring forth children." Sir James quickly answered this party, which even comprised some doctors, with the biblical fact that God narcotised Adam (*immisit soporem*—"caused a deep sleep to fall upon him") when he created Eve out of his rib.

AN ACEPHALIC MONSTER.

To the Editor of THE LANCET.

SIR,—As these cases are not commonly met with, I thought the following might be worth recording. The case occurred in my obstetrical practice on the 6th inst. Being called to attend Mrs. H. S——, a multipara, I found on examination a pouch of membranes projecting through a well dilated os, and had no difficulty in diagnosing a foot presentation. I ruptured the membranes, brought down the foot, and got the labour terminated in a short time. It struck me, however, at the time with what ease the head passed out through the lower outlet, and on examining the foetus, which showed marked signs of life in moving its body and extremities, though not crying, I found the greater part of the head absent. The body was that of a well-developed female child, and the face, as far up as the lower part of the forehead, was also well formed, with the exception of the eyes, which were preternaturally large and projecting. There was no forehead, the whole of that part of the cranium originating in membrane, and its contents appearing to be absent. The skin and dura mater terminated abruptly with the bones, and the base of the skull supported little else than the pia mater, the cerebrum being wholly or almost wholly absent. There was very little trace of the cerebellum, but the medulla oblongata seemed to be intact.

I may mention that it lived only a few minutes, to the great satisfaction of its friends, who seemed shocked to find that it was not "like the world." As I was not allowed an opportunity of making a dissection, I can furnish no further particulars.

I am, Sir, your obedient servant,

Beith, Ayrshire, April 7th, 1881. C. R. MACDONALD, M.B.

Dr. H. J. Hardwicke is thanked for his communication; but it does not seem to us that the statements of the criminal he mentions are of any value.

Dr. Latham (Cambridge) is thanked.

Junius.—We do not see anything objectionable in the proceeding.

M. D. W. (Dundee).—Professor Moleschott's lecture will be given in whole or in part in an early number.

A Young Practitioner.—1. Barnes, Galabin.—2. Eustace Smith, Meigs.

Dr. T. Robinson.—We cannot promise insertion of the paper.

Mr. J. B. Sealy.—An account of the case will be found in THE LANCET of April 9th, p. 601.

EARLY MATERNITY.

To the Editor of THE LANCET.

SIR,—Those interested in such statistics will find recorded in THE LANCET for 1874 (vol. ii., page 436) an instance of maternity at the age of thirteen years; and in THE LANCET for 1873 (vol. ii., page 862) an instance thereof at the age of ten years and a half. We may set off against these two cases, and the still more remarkable one in to-day's LANCET, the case of a woman being delivered of triplets at the age of sixty-two, recorded in THE LANCET for 1867 (vol. i., page 727).

I am, Sir, yours, &c.,

Penzance, April 9th, 1881. A. B. B.

DRUGGISTS' CHARGES.

To the Editor of THE LANCET.

SIR,—"A Retired Surgeon," in your last issue, states that when he commenced his professional life, in a small country town, forty years ago, surgeons not only dispensed their own prescriptions, but also those of consulting physicians, with very considerable profit and little trouble.

I can assure him that in many parts of England the surgeon is still as much an apothecary as he was forty years ago, and strictly adheres to the above practices. In many towns in Scotland, too, and more especially in the Glasgow districts, the practitioner, often a university graduate, "dispenses" such articles as tobacco, snuff (in half-pennyworths), sweets, bottles of hair-oil, corn-plasters, and such like. He is not above "sending out his own remedies"; he is even sometimes not above sending out the remedies of Professors Holloway and Morison. This certainly does not look like what "A Retired Surgeon" designates as "pride interfering with pocket." The remuneration for this "brain work" goes into the practitioner's pocket.

So that the good old days have not quite gone yet. Why not improve on them, if possible? Why should not the practitioner become more general than ever, and sell ham and butter, or spirits and beer?

I am, Sir, yours truly,

April 15th, 1881. A SURGEON—NOT RETIRED.

FALSE EARS.

IN Paris false ears are a new manufacture for the toilette. Ladies who think they have ugly ears place these artistic productions under luxuriant tresses of false hair, fasten them to the natural ears, and wear them for show. False hair, false teeth, false breasts, false hips, false calves, false ears—what next?

FEES FOR MEDICAL EXAMINATIONS FOR INSURANCE OFFICES.

To the Editor of THE LANCET.

SIR,—I have seen some correspondence in your columns lately on the above subject, and there is one point which has not I believe been touched on, and which, I think, is well worthy the attention of the profession. It is the custom of some offices to give only half a guinea as fee when the proposal is for under some amount (in some offices £300, in some £500). This has always struck me as an anomaly, for surely the medical examination and report are, or ought to be, the same in all cases, whatever is the sum proposed to be assured. I examine for a good number of offices here (perhaps a dozen), and it has been my custom to write a protest to the secretary on receiving my first half-guinea fee, pointing out the inconsistency, and asking on what principle the office acts. I am happy to say that one of my offices last month reduced the minimum amount for the full fee of one guinea from £500 to £300, and that I have had a letter from the secretary of another only this week, saying that "they have pleasure in stating that a fee of £1 1s. will be allowed in all cases in future." This is encouraging, and shows, I think, that if other medical examiners for insurance offices would write similar letters we might soon have a guinea in all cases—not too large a fee, in my opinion, for any such report as most offices demand and, I think, have a right to expect for their own protection.

I am, Sir, yours, &c.,

Halifax, April 12th, 1881. E. WEST SYMES, M.D.

TALIPES AFTER ACUTE RHEUMATISM.—WHAT TO DO?

To the Editor of THE LANCET.

SIR,—I have under my care a girl nine years of age who some three years ago had an attack of acute rheumatism. During convalescence there suddenly appeared lameness, caused by contraction of the tendo Achillis, and since that time the case has remained apparently a simple case of talipes equinus.

I should feel very much obliged if any of your readers could tell me whether or not in such a case section of the tendon would be justifiable or likely to improve the limb. The girl is very well in health now.

I am, Sir, yours, &c.,

April 20th, 1881. E. G. W.

A Subscriber.—We do not know of the existence of such a society.

Mr. William Fraser, M.B.—We are not aware of any such necessity.

Union.—We fail to see that any practical benefit would arise from the adoption of our correspondent's suggestion.

Dry-as-dust.—We have no recollection of the article mentioned.

THE CONTINUED USE OF ERGOT IN SMALL DOSES.

To the Editor of THE LANCET.

SIR,—May I ask, through your columns, if any of your readers can give me information upon the continued use of ergot in small doses, as to how long it may be persevered with without inducing ergotism?

I have a patient who has been suffering for some time past from, I think, aortic obstruction. Four consultants have seen the case, two of them, at least, very eminent men. The advice given has always been to rest upon the iron and digitalis treatment; and this was done and seemed sufficient until lately, when it completely failed, and the patient looked like going altogether to the bad. Dyspnœa became extremely urgent, the action of the heart very tumultuous, and the pulse hardly perceptible. Stimulants appeared to increase the mischief, and all the ordinary remedies proved utterly useless. Anasarca first, then ascites supervened, then œdema of the lungs; and the patient appeared to be moribund, and not likely to last from hour to hour. In this extremity I had recourse to ergot, which had once before in my hands been successful for a time. The preparation used was the ext. ergotæ liq. (P.B.), and the dose given twenty minims every three hours, combined with five minims of tincture of digitalis. In a short time the most marked improvement in the pulse was observable, and in about three days the patient was breathing calmly and sleeping quietly, the pulse being full and soft, and not over sixty. Since then the dropsy has disappeared, and rest can be taken lying quite low in bed; the dose of ergot has been reduced to ten minims every fourth hour, and the exhibition of it has now been continued for three weeks.

In my previous case, as soon as good improvement was established, and the patient could leave her bed for a sofa, the ergot was discontinued, when immediately the whole trouble recurred, and the patient quietly succumbed. I should like now to push the ergot to the furthest possible extent to see if permanent improvement can be established; and I shall be very greatly obliged by any information upon the subject that any of your readers can give.

I am, Sir, yours obediently,

April, 1881. QUÆSITOR.

A NEW OPERATION FOR SOME FORMS OF NEUROMATA.

To the Editor of THE LANCET.

SIR,—I hardly know whether I am justified in calling this a new operation, but it is not described in "Holmes's System of Surgery," and I never saw it practised. Holmes says, "The only effectual remedy for these morbid growths is the knife; the operation may consist either of excision of the tumour, with or without a portion of the nerve, or of amputation of the affected limb."

Now, my operation may be called excision of the tumour without a portion of the nerve, but it is not described minutely, and unless the surgeon remembers the pathology of neuromata he will probably not think of it, simple as it is. Let me tell my story. I will first describe an interesting case, in which I must confess that I and a friend of mine made a mistake, and then I will show what lessons I learnt from it. Last summer a man came to our hospital with a large tumour in the position of the median nerve, just below the axilla. There was also a large mass a little above the bend of the elbow, apparently connected with it, but not the same tumour. I supposed that both were enlargement of the median nerve. It was on the left side, and on the same side of the trunk was an immense number of small tumours, chiefly on the chest-walls, which looked like enlarged lymphatics, but I am inclined to think they were connected with nerves. There were about fifty of them, about the size of small nuts. The tumour under the axilla was very painful, and the patient wished this one to be removed.

My medical friend who was with me proposed to perform some operation. I asked him to do this, and promised my assistance and advice. He divided the tissues down to it carefully, and exposed the tumour. It was connected with the median nerve; the nerve was one with it, in fact, above and below, and there seemed to be no way of dealing with it but by removing a portion of the nerve, cutting it above and below the tumour. I had done this a year or so before in the case of a similar tumour, and though the patient lost more or less the use of the arm, he got rid of the pain; so I advised my friend to do the same. He did so. The mass at the bend of the elbow we deemed it wiser to leave alone. There was troublesome suppuration afterwards in the wound, but it finally healed. The man did not lose so much power of the arm as I expected, though it was considerably paralysed. The curious and satisfactory point was that the mass near the bend of the elbow disappeared gradually, and all the small tumours spontaneously disappeared also. We examined the tumour we had removed, and were struck by the way in which nerve fibres completely surrounded the tumour, which was in the centre and almost unconnected with the nerve. It was fibrous in its nature. I looked at Jones and Sieveking's Pathological Anatomy, and found these tumours very clearly described.

I resolved the next time I saw a neuroma to bear in mind the probability of it being what Jones and Sieveking call a false neuroma, which was evidently the nature of the tumour we had removed. In the course of the next six months I had three cases, and I applied the knowledge I had acquired. The first was a tumour on the outside of the leg, connected with the musculo-cutaneous nerve; the other two were in the axilla, and connected with the median nerve. All these three tumours were false neuromata; the nerve fibres had completely formed a covering for the tumour. I simply cut carefully through all the tissues down to the nerve; then hooking it up, I made a longitudinal incision through the nervous covering of the tumour, and turned out the fibrous tumour with the greatest ease, leaving the nerve uninjured except by the longitudinal incision. I stopped the bleeding and closed the wound with a suture or two. All these cases did well; the wound in two cases healed by first intention. In the case of a large neuroma of the median there was secondary hæmorrhage and a good deal of suppuration, but in all cases the wound finally healed, leaving the patient without pain and the nerve quite uninjured, the motion and sensation of the parts supplied being perfectly normal. This may not be a new operation. There is certainly nothing remarkable in it, but it is one of great practical use, and I have not seen it described, so I think the above might be worth publishing.

I am, Sir, yours, &c.,

Kashmir, March, 1881. E. DOWNES, L.R.C.P. Lond.

ERRATUM.—In Dr. Robinson's letter on Locomotor Ataxy, in our last issue, page 644, the word printed "parents" should have been "patients."

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